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THE

CULTIVATOR,

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A MONTHLY

JOURNAL FOR THE FARM AND THE GARDEN,

DEVOTED TO

AGRICULTURAL AND RURAL IMPROVEMENT,

AND DESIGNED

TO IMPROVE THE SOIL AND THE MIND.

ILLUSTRATED WITH ENGRAVINGS OF

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ANIMALS, FARM IMPLEMENTS, &c.

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[EXPLANATION.—It will be seen that we have adopted a new plan in making out the Index for this volume. We have divided it into *Four Departments*—I. THE FARM—II. DOMESTIC ANIMALS—III. DOMESTIC ECONOMY—IV. HORTICULTURAL. This will facilitate reference, as one can at once refer to the department desired, without the necessity of looking over the whole index.]

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THE CULTIVATOR.

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AGENCY IN NEW-YORK.—C. M. SAXTON, *Agricultural Book Publisher*, No. 152 Fulton-street, New-York, is Agent for THE CULTIVATOR and THE COUNTRY GENTLEMAN, and subscribers in that city who apply to him, can have their papers delivered regularly at their houses.

The New Year.

We are happy to be able to say that the friends of THE CULTIVATOR have, with a very general and gratifying unanimity, responded to our wishes, as expressed in the last number, in regard to procuring subscribers for the new volume. In places where there has been but one heretofore, large numbers are now coming in, and very many new Post Offices are daily being added to our list. We had hoped indeed for an increased circulation in 1855, but so far as the interest of our friends can indicate the result thus early, our former numbers will be *multiplied* rather than merely receive accessions. While we should be glad to have all those who would like a Weekly Journal, devoted to every Field and Family interest of the Farmer, remember the *Country Gentleman*, what we especially desire is to obtain the name of EVERYBODY ELSE, who cultivates the ground in large or little measure, or who has even a taste for rural subjects, for THE CULTIVATOR. We trust that this will, the present winter, be accomplished in a greater degree than ever before. We expect it, because of the general and increasing feeling that Agricultural Reading, of a sound and standard character, *ought* to receive a circulation commensurate with the benefits it confers; because the present time is peculiarly one to awaken both among farmers themselves, and through the whole community, a sense of their importance to its well-being, and to teach a lesson of the absolute and universal necessity of a better system of culture; because THE CULTIVATOR presents the *best teachings of the best practice;* because its correspondents contribute to its pages, from their every day's accessions of knowledge, in every part of our own Country, as well as from the laboratories of the Old World; because though standing on the out-posts of all that is *reliable*, it has never been led astray by what was novel; and, finally, because it *is within the reach of* ALL.

We have hinted that the Farmer holds a position, just now, of unusual importance to the community. This must be plain to any man who observes how rapidly our population is increasing, and how far our supplies of those provisions which we are accustomed to consider absolute necessaries, fall short of the demand; how prices of produce are continually rising, and though now and then fluctuating, never permanently declining, and how large a market we might have abroad had we any thing beyond our own demand. With a ready market for every product of his fields or stock which he can spare, and this at the very highest prices, the farmer is thus well able to take his turn in sneering at those who have in times past sneered at him. All the world is looking to him for renewal and continuance of its means of life, and offering and paying therefor no stinted or small returns. How little reason has he then to refuse to avail himself of all the agricultural information that can be obtained, on such a paltry excuse as "hard times,"—how much the more rather, to secure every possible source of knowledge, by which his crops may be increased, and his profits consequently augmented. Again we say that our home consumption imperatively demands increased supplies; that there is no danger of prices falling, and that farming is at this moment attracting more attention in the thinking part of the community than any other one pursuit. Shall the Farmer be the only one to neglect himself?

OUR TERMS have been received *every where*, so far as we learn, with unqualified approbation; and the extraordinary and unparalleled cheapness of *Twenty copies with Twenty Registers for* $10, will continue we hope, to call forth the interest with which it has thus far been met. OUR PREMIUMS should awaken general competition. Many a man who is now thinking he would make some endeavors in our behalf if there were better prospects of success, *might*, were he to try, raise from a single club, up to a number large enough to draw out the fifty dollars. Will not all do their share? Whether *you* can get one friend, or ten or twenty, to subscribe, it will be an advance for your neighborhood, and such an one as we should be glad to chronicle.

There is one other suggestion we wish to make. The number of subscribers might be every where largely increased if each ONE would do what he can to assist the agent, and not all throw the whole burden on his shoulders. When an agent has made up a club, let each man take hold of the matter in his own, or some one locality, and pick up all the names he can, *now and through the year*, and hand them to the agent. In this way a better spirit would be aroused through the whole town, and no little benefit conferred upon the cause of agriculture.

We can only repeat what we have so often said, that we shall be most happy, not only to furnish every applicant with specimens of both our publications for himself, but to send them to any friends, whose addresses he may be kind enough to forward; and that any body who thinks there is room in his vicinity for a club for either the COUNTRY GENTLEMAN or CULTIVATOR, shall receive a copy of our *Annual Register* to assist him in making it up. It will show, aside from being a sample of the Register itself, the character of the illustrations and mechanical execution of our papers; and as to its own merits as a RURAL ANNUAL, we are daily receiving the highest commendation, not in words only, but in substantial orders.

And in conclusion, we cannot let the opportunity pass without tendering to our friends the compliments of the season—A HAPPY NEW-YEAR to all!

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To our Agents and Friends.

As an inducement to agents to exert themselves to obtain subscriptions, aside from the consciousness of the benefit they will confer upon their neighbors and the community by bringing such works into more general circulation, we offer the

Following Premiums.

1. To the one who shall send us the largest amount of cash subscriptions to the CULTIVATOR and the COUNTRY GENTLEMAN for 1855, with the pay in advance, at the rate of Fifty Cents for each copy of the former, and One Dollar and Fifty Cents—(the lowest club price, where ten or more copies are taken)—for each subscriber to the COUNTRY GENTLEMAN, previous to the 10th of April next, FIFTY DOLLARS in cash.

2. To the one sending us the next largest amount, FORTY-FIVE DOLLARS.

3. For the next largest..... FORTY DOLLARS.
4. For the next largest,.... THIRTY-FIVE DOLL'S.
5. For the next largest..... THIRTY DOLLARS.
6. For the next largest,.... TWENTY-FIVE DOLL'S
7. For the next largest..... TWENTY DOLLARS.
8 For the next largest, ... FIFTEEN DOLLARS.
9. For the next largest,.... TEN DOLLARS
10. For the next largest,.... FIVE DOLLARS.

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☞ Agents cannot be too particular in writing the names of their subscribers, and their post-offices in a legible manner. The state, also, should always be given.

BUSINESS NOTICES.

Terms of the Cultivator.

For a single copy, ...	FIFTY CENTS.
Twenty copies, with ANNUAL REGISTER to each,	$10,00

☞ The money in all cases to accompany the order, and subscriptions invariably to commence with the January number.

☞ Clubs need not necessarily take their papers from the same Post-Office, but it is preferred, where not inconvenient, that they should go to one office, and if possible to one address.

☞ After one club has been ordered, agents may continue to send subscribers on the same terms—i. e., Fifty Cents each, for both the CULTIVATOR and REGISTER. To prevent mistakes, it may be well to number the subscribers, as they are sent in, 1, 2, 3, &c.

☞ The price of the back vols. of THE CULTIVATOR, bound, is 75 cents—they will be sent *post-paid*, by mail, at $1. per vol.

Terms of the Country Gentleman.

FOR ONE YEAR.	
Single copy,..................................	$2.00
Three copies,.................................	5.00
Five copies,..................................	8.00
Ten copies,...................................	15.00
FOR SIX MONTHS.	
One copy, ...	$1.00
Six copies,....................................	5.00
Ten copies, ...	8.00

☞ Every subscriber who will procure a new subscriber, and remit $1.00 shall receive TWO copies of the ANNUAL REGISTER—that is, one for each.

☞ Payment must be made in advance—or fifty cents per year will in all cases be added to the above terms.

Price of the Rural Register.

Single copy, ...	25 cents.
One dozen copies,.....................	$2.00
One Hundred copies,...................	15.00

Subscribers in British Provinces,

We have to pay the United States postage on all papers to the British Provinces; and this we cheerfully do, to all subscribers who pay the single copy price of $2 00 for the Country Gentleman, and Fifty Cents for The Cultivator; but on all clubs, the U. S. postage must be added. Hence our club terms to them for the latter will be—

20 copies, and the REGISTER to each, ...	11.00

And for the COUNTRY GENTLEMAN,

3 copies,..................................	$5.75
10 copies,.................................	17.50

☞ Correspondents are particularly requested, when they favor us with any facts for publication, or any inquiries or suggestions intended for the editors, to write on separate sheets, or on such parts of their sheets, that all notes for the editors may be easily separated from the business parts of their letters.

☞ Great care should be taken to write the name and address of each subscriber distinctly, thus:

"*John Smith,....Lenox,....Berkshire Co.,....Mass.*"

☞ Specimen Numbers and Prospectuses will be sent to all who desire them.

☞ We are daily receiving the most flattering compliments in behalf of the Country Gentleman, in the letters from our subscribers in different parts of the country, a column of extracts from which we may give hereafter. In the mean time we cannot appeal to our friends too earnestly to aid us in extending the circulation of the Country Gentleman. We ask all our subscribers to do us the favor, to procure one additional subscriber. If they will do this, they will not only benefit the proprietor, but enable him to add very essentially to its value whereby all its readers will be made to share in the benefit conferred.

Foreign Correspondence.

BAVARIAN AGRICULTURE—MODE OF CURING HAY.

I spent a few days of August in the Bavarian highlands, among the Alps, lying a day's drive south from Munich, and just on the border of the Austrian Tyrol. In the numerous villages among these mountains, may be found thousands of people who quit the cities of Bavaria, and even of the northern kingdoms, to find relaxation in the country. Here are numerous beautiful lakes, (ponds we should call them,) often shut in by the mountains; the latter are more or less covered with the greenest wood or pasture, or lift up singularly sharp and jagged peaks to the height of 6 to 10,000 feet. There is no end to new and pleasant, often imposing, scenery. The peasantry were busily occupied in gathering their harvests. In the valleys I noticed many small fields of wheat, barley and oats; on the Alps, (Alp, means strictly not a mountain, but mountain grass-lands,) they were gathering the hay crop. The hay is cut here several times during the summer, as I saw it being mown in many fields where its height was not more than three or four inches. Owing to this frequent cutting and the abundant rains that fall in the highlands, the grass is very fine, thick-set, and of an intense color; the meadows are indeed very like English lawns. On account of the variability of the weather, a peculiar method of curing hay is practiced. One observes numerous little log barns fifteen by twenty feet square, and ten feet high, scattered over the lower Alps. (I have counted more than 100 of them from a single position, and they communicate a singular effect to the landscape, as their roofs, in common with those of all the peasants' buildings, are thickly overlaid with large stones.) Into these shanties the hay is thrown while half dry, and thoroughly trodden down. It shortly ferments, and the hay becomes dark brown in color, and forms a quite solid mass, which may be cut with a spade. Prof. Fraas, of the Munich University, says in his Principles of Agriculture, that this so-called "brown hay is as good for cattle as ordinary hay; it is in fact preferred by them, and appears to be more nourishing."

Some of the small grain fields promised a good crop. I found occasionally in the standing wheat, the yellow grain-worm which often makes such sad havoc in the United States. The soil is mostly good, though the amount of arable land is small. Many families keep a cow or two and a few goats, while here and there a farmer is found who owns much land and manages a considerable dairy. The females mostly care for the farm, &c. The men seem to be occupied in mechanical pursuits, (manufacture of wooden toys,) attend to getting out firewood, or amuse themselves in chamois hunting. The management of manure seems not to be very advantageous. Not only in the highlands but in the vicinity of Munich, one sees a manure heap often very near the dwelling, in a cubic pile several feet high, and surrounded with a ditch overflowing with the rich-brown essence of fertility, the whole exposed to wind and weather. The farm implements are very simple. Scythes are wide short blades with straight handles, but do their work admirably. Here they are sharpened with a whet-stone, and not as in north Germany with a hammer! Hand rakes are very good, but the great wooden hay-forks are not to be recommended. I have only seen improved implements in the exhibition; none on farms. I hope however to visit shortly some farms where the English management has been introduced.

FOOD AND HABITS OF THE PEOPLE.

The food and habits of living of a people afford, to a certain extent, an idea of the condition of agriculture and the arts among them. The bread consumed in Bavaria, is mostly made of rye, although among the better classes wheat bread is largely used.

The rye-bread is not sour, as is that made in north Germany, or at most only very slightly so. It is usually well made, and always contains a considerable quantity of caraway, fennel, coriander, and such like aromatic seeds. Wheat-bread is made of various qualities. The cheapest is apparently wet up with water. Another kind is called milk-bread; still another is called egg-bread. The weight and quality of the bread furnished by the bakers is constantly controlled by the city authorities. From time to time there appears in the city papers, a "Regulated scale of prices for flour and bread in Munich," a copy of which hangs at every baker's door. From one just issued I derive the following rates, having reduced the Bavarian weights and measures to English:

Wheat, per bushel,	$2.01 to $2.14
Rye, " "	1.60 to 1 66
Wheat bread, per lb.,	5½ cents.
Rye bread, "	3 cents.

These prices are higher than usual, though much lower than they were in the spring. A national article of food in Bavaria, is a sort of dough-nut, here called *nudel*, which is consumed in fabulous quantities on all festival occasions.

From the annexed prices of butcher's meat, it will be seen how the different kinds of flesh are prized. Fattened beef sells at present at 7 cts. per lb.—veal, 8 cts. per lb.—mutton, 5½ cts. per lb., and pork 10 cts. per lb. The butcher is allowed to sell the good and inferior pieces together at one price. Veal is favorite food. It is usually quite young, and may be found in a great variety of forms on the eating-house tables. Sausages stand very high in public esteem.

I remember to have read that St. Boniface, the first christian missionary among the tribes of Germany, persuaded them "to abandon the barbarous practice of eating horse-flesh." But it seems that the old appetite has broken out again after having slept for ages, and that too, where the memory of St. Boniface is perpetuated in the most splendid manner. In Munich, Nuremberg, Vienna, and other cities, there are public establishments where horse-beef is sold. Some time since there appeared in the leading German journal, the "Allgemeine Zeitung," an able article advocating the use of this kind of flesh, asserting its good qualities, ridiculing the prejudices against it, and recommending it to the poor on account of its cheapness, costing but half as much as the ordinary butcher's meat. The excellent flesh of the roe-deer and of the hare are cheaply served every day in the better eating-houses.

Among vegetables the potato is very largely consumed. It was introduced into Bavaria by Count Rumford, 60 or 70 years ago, and its use though at first opposed by extreme prejudice, became shortly universal. But turnips, carrots, scorzonera, not to mention cabbage in all its varieties, are found in great profusion in the markets. Fruits in their season are abundant, of fair quality, and cheap.

In the newer parts of the city, may be found numerous milk shops, where milk and all its preparations are sold, and there may be met students and others making a cheap and substantial supper of rye bread and milk, of which a very satisfactory quantity may be obtained for 4 kreuzers, or less than 3 cents. Excellent butter is brought into the city on market days, but it is always unsalted. Of cheese I am no judge, but one variety called *Limburger*, is too highly flavored to pass unnoticed. It is seen in the market in chalky-white rolls, here and there streaked with yellow and green, its look in every way unattractive, and it loads the air with an odor which strongly reminds one of a passage in Hamlet—"something is rotten in the state of Denmark." Bread with this cheese, is commonly a last dish at the German *table d'hote.*

But the Bavarian is less characterized by his meat than by his drink. So far as I have had opportunity to observe, the water is good, and it is not considered dangerous as a drink as is the case in some parts of Europe. Tea is little used, but every body drinks coffee, a cup or two of strong coffee and a roll of bread constitutes the morning meal. After dinner the better classes must have their coffee again; but it is beer which the Bavarian considers as the national blessing, and Munich furnishes this drink of the most esteemed quality, and in quantities truly enormous. "Brewing is the most flourishing trade in Bavaria; it employs more than 5,600 establishments and nearly 96 million gallons are made annually. It is also said to furnish two-thirds of the whole state revenue." In the evening nearly the whole male population of Munich assembles in the beer houses. An expert drinker often consumes 8 or 10 quarts of beer in a few hours, but it is drunk so slowly—enjoyment and not intoxication being the object—that the more startling evils of intemperance are hardly perceptible here.

Moderation is perhaps characteristic of the Bavarian. He is moderate in eating, and also (time taken into the account) in drinking, and certainly he is moderate in labor. The intensity of thought and action that belongs to the American character, is rarely manifested here. But Bavaria is waking up. As the ex-king Ludwig was unequalled as a patron of the fine arts, the present Sovereign promises to become illustrious in fostering science and industry. He has already gathered many men of note to his capital, and the University, strengthened by such names as Liebig, Knapp and Pfeufer, will continue to be one of the most numerously frequented institutions of Europe. S W. JOHNSON. *Munich, Sept.* 1854.

On the Sweet Potato.

A correspondent in the 17th number of the present vol. of the *Country Gentleman*, wishes to know something about the culture of the sweet potato, &c In the first place, he wishes to know the cheapest mode for keeping them for seed. If he only wishes to keep a few for seed for his own use, I think the cheapest plan is to get a box large enough to hold six or seven bushels of potatoes, besides chaff enough to cover the potatoes about a foot thick; sink the box about three or four feet in the ground so as to get below the frost. An elevated place should be chosen for this purpose; after the box is sunk, put in the potatoes and then the chaff; cover it over with some loose plank, fill up with dirt, and raise a mound over them to turn off water, and have besides a little covering of plank to aid in keeping off the water. But if he wishes to have potatoes to sell, and to eat all the winter too, a good plan is to dig a cellar in the ground something like an ice-house; have a good air tight floor even with the top of the ground, and a house above of course; have uprights reaching from the bottom of the cellar to the floor above—nail some plank on the uprights so as to form a sort of box to put the potatoes in, about 50 or 75 bushels in a box. These uprights should be put in a line on each side of the potato house, leaving a passage beeween for convenience in getting about through the house. It makes no difference about having anything on the ground to pour your potatoes on, for they keep just as well without. I find that the only difficulty in keeping potatoes, consists in keeping the house at the right temperature, which I think is between 45 and 60 degrees Farenheit, so the potatoes will neither freeze nor grow. The above house can be made accessible at all times by a trap door, and a small step ladder.

In the second place, whether it is better to plant the potatoes in the ground, or sprout them, and plant the sprouts? I think it decidedly better to sprout them, for the sprouts of one potato will go as far as half a dozen potatoes without sprouting.

Thirdly—How to make a bed? I lay off a bed about 14 feet long by 6½ wide, with somewhat of southern exposure; haul manure from the stable, and keep piling on my bed till I get it about 2 feet high, taking care to build the sides and ends of my bed up straight Next I make a frame 12 feet long by 4½ wide. I put this on my bed; then I get dirt where I can get it the handiest, and cover the manure about 3 or 4 inches deep. Then I wait till the heat rises and falls again to about 90 degrees Farenheit. Then I cut my potatoes in pieces from 1½ to 3 inches long—put about a bushel and a half to a bed of the above size, and cover the potatoes an inch deep with some light dirt from the forest; then water whenever they need it. In this way I have a good lot of plants at planting time.

Next, what sort of land is best for them? I think that land which will bring a good corn crop is the best for sweet potatoes. I never use manure for sweet potatoes unless I think the ground not rich enough for them, for I think it makes the vines too luxuriant;

such being the case, I dont think the potatoes grow as large as they would otherwise; when I think it necessary to use manure, I prefer stable manure to any I have yet tried. On about six acres of the above sort of land, I raised this year about 800 bushels of potatoes, which I consider a tolerable crop for the present dry season.

As to planting, I think it decidedly preferable to plant in ridges or rows, to planting in hills, for two or three reasons. First, the ridges are much more easily made, and are also much easier cultivated. Then I think the yield per acre much greater than when grown in hills. Besides in hills the labor of cultivating must all be done with the hand, while in ridges it can almost wholly be done with the plow.

Lastly, I plant my potatoes 2 feet or 2½ feet apart on the ridge. I find a great saving of plants in this way, and the hills being so far apart, the potatoes grow much larger: the yield I think is much greater than if the hills were closer. Two beds of the size I have described above, will plant an acre as above. Rich'd Young. *Springdale, Ky., Nov.* 6, 1854.

Subsoil Plowing Again.

Messrs. Editors—In the Nov. No. of the Cultivator, I notice an article signed "A Subscriber," Long Island, making inquiries in regard to subsoil plowing. Now, if he waits until all *scientific* agriculturists agree on the subject before he tries it for himself, he will not be likely to be benefited very soon from the result; and my advice to him would be to try it at once himself, and if he is afraid to *subsoil*, let him plow *deep* with a large plow, and, perhaps, he will get some hints from it that will be of more interest to him than the experiments of others. A few facts in regard to my own experience in deep plowing: My farm is quite level; soil light vegetable loam; subsoil pretty stiff clay. Four years ago I noticed where a large tree had blown out by root, bringing up a large quantity of the subsoil that, becoming mixed with the soil it invariably produced better crops and ripened earlier, and was not affected by drouth; and taking the hint, I began to deepen my furrows in plowing until I turned up soil to the depth of ten and twelve inches, and the result has been most apparent and satisfactory, increasing the yield very materially, while it is not so liable to be effected by neither excessive rains or drouth; of the latter I have had a good opportunity of testing the present season, and the result has been that on lands thus plowed I have the present fall, cut more clover seed to the acre than I ever cut before, while my neighbors who do not subsoil have cut none. But, I would not disguise the fact, that I have been much stimulated and assisted in my farming operations, by taking and *reading* a number of agricultural papers, carefully examining the *theories*, and putting such in practice as commended themselves to my judgement as promising the best results; and it is needless to say, that in some instances I have been disappointed, while in others, I have made some glorious discoveries. And I would say to your correspondent and all others, go thou and do likewise, make your own experiments and you will get facts for your pains, that will be of more value to you than all the experiments of others put together. J. H. McGrew. *Piqua, Ohio.*

Quickset Hedges—No. 1.

Eds. Co. Gentleman—As I write from experience, it will be necessary to be prolix in order to explain clearly and to enable the reader understandingly to proceed successfully with this work. The preparation of the ground under the most favorable circumstances, will be my first point; and secondly, the preparation of ground in unfavorable places—such as are wet or boggy.

Most writers recommend deep digging and heavy manuring, but I doubt much if they succeeded to their heart's content in making a good hedge by so doing. I never saw any that did, but have known much injury done by it. Land that is dry and healthy—unsheltered by trees or fences, is most favorable for the growth of Quicks or White Thorn—a clay bottom is most desirable, but I have never failed on any kind, whether sand, gravel or any other bottom, only on clay the thorn grows stronger. Dig one spit deep, three feet or more wide, clearing out all roots, old wood, and foul weeds. This latter is of essential consequence to the growth of the hedge. Then lay a line where you wish the hedge to grow. Let the line be a good length, say twelve or more rods long. With a hoe level the ground, removing all unevenness in the line, which will add much to the beauty of the work when finished; then beat the ground firmly and evenly with the back of a spade or shovel, mostly on the back side of the line, so that when the trench is dug for the plants there may be a firm bank to plant against. It will give the workman less trouble in making the trench. This done, strain the line again, and make sure all is of a proper level. Then commence the trench for the plants, which should be somewhat of this shape, V, when finished, the upright bank being next the line, against which the plants are placed at regular distances and about four inches deep. For a front or ornamental hedge, the plants may be four inches apart—farm hedge or line hedges six or eight inches; for plashed eight, ten or twelve inches is close enough. The plants being placed in the trench, a little earth should be thrown in on the roots and trodden down; then fill the trench nearly to the top, and give a firm and even treading on the trench side, and fill up even with the back bank. If any plant should stand irregularly, straighten it up with the finger and thumb of both hands, pressing the earth firmly around it to keep it in its place.

In wet or boggy ground, it will be necessary to raise a bank, unless the water can be drained off in some way, which is most advisable. I find the less elevation this plant has, the better it will grow—that is, avoid ditching as much as possible next the hedge. Our climate is too dry in summer to require it, and the frost in winter is apt to expose the roots by removing the earth in our frequent thaws.

Time.—In wet land, the spring is most advisable, but I have succeeded well in the fall by planting deeper and placing a fence board on the surface of the ground on each side of the row close to the plant; this prevents the plant being thrown out.

In dry land, fall planting is preferable, and the earlier done the better, after the leaf falls; but any time in winter when the ground is free of frost, they may be safely planted—it may be well to say that could the ground, where the hedge is wished, be cropped, either with corn, beans or potatoes the season previous to planting the hedge, it may be useful in eradicating weeds and getting the ground in good tilth for it. I have generally found the ground to be quite rich enough without manure, but if it should not be, it will be far better to put it in the ground with some previous crop than after; still I am opposed to forcing the growth by such means, for I think it is apt to bring on premature decay, and perhaps from this cause the remarks in a recent number of your paper may be true. This I suggest, not assert to be the case. W. M. B. *Skaneateles, N. Y.*

Pardee on the Strawberry.

A complete Manual on the Cultivation of the Strawberry, with a description of the best varieties. By R. G. Pardee. New-York: C. M. Saxton.

A notice of this interesting and valuable little book, has been accidentally deferred a few weeks since its publication. It is a neat 12mo. volume of 144 pages, and contains besides a treatise on the Strawberry, directions for the culture of the Raspberry, Blackberry, Gooseberry, Currant and Grape. The author has been long known to the horticultural public, for his enthusiastic fondness for strawberry culture; and his book, which is written in a clear and sprightly style, is the result of thorough experience. As his experiments have been confined, however, to amateur culture or to limited grounds, we are not furnished with so full details of market cultivation as would be desirable. With this addition, it would become a work of universal acceptance. We think that good and distinct portraits of the fruit would be rather better than the *sections* given, and convey a more distinct impression of the characteristic appearance of the varieties.

As a specimen of the author's condensed and practical manner, we copy the following paragraph on the facility and cheapness of strawberry culture:

> During many seasons we have had on trial in our garden from twenty to sixty varieties at a time, and altough some were comparatively unproductive, yet the average cost of producing them for years has been less than fifty cents per bushel; not including the cost of picking or expense of plants, which were taken from our own garden. Others can, and have done, the same. We can refer to amateurs, market-men, farmers, and nurserymen in Western New York, who have raised them at even a smaller cost, both on a large and a small scale. On a plot of ground fifty by sixty feet, we have repeatedly gathered over fifteen bushels in a season, under all the disadvantage of many varieties. With a good selection of kinds, it is certain that one hundred and fifty bushels can easily be produced on an acre, and we have abundant testimony that on a larger plot, at the rate of two hundred bushels per acre has been gathered. It is almost as easy to raise extra-large, fine fruit, as it is small indifferent berries; and it is a decided object. Fruit of high flavor, measuring from three to four inches in circumference, will command fifty cents per quart in New York or any other good market, as readily as small fruit will ten cents; while the labor of picking such large fruit is very small, and the product much larger. The demand for extraordinary fruit is every where increasing.
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> Of the many varieties on our own grounds one season, more than twenty different kinds, without special effort, produced specimens four inshes in circumference, while the larger were six.

Those who wish to obtain in a portable form and in a clear and condensed manner, the results of the latest and best experience on the culture of this delicious fruit, should by all means purchase and read this book.

A Profitable Acre in Western New-York.

Eds. Co. Gentleman—During a recent visit at Naples, Ontario County, we learned some facts respecting an acre belonging to Mr. McKay which may be interesting to the readers of the Country Gentleman. They show conclusively that large farms are not necessary to derive large profits. Said acre was planted with Isabella grape vines in 1849. The fall of 1852 these vines bore quite abundantly, but no particular account we think was kept of the quantity. Last season (1853,) about eight hundred dollars worth of grapes were gathered and sold from them. It should be stated that the grapes sell readily in market at more than an average of *one shilling* or twelve and a half cents per pound. The stems are picked and carefully packed in boxes for market. This year according to the statement of the gardener in Mr. McKay's absence, the vines produced ten tons of grapes. This, at six cents a pound, would amount to twelve hundred dollars. They could have been sold at eight cents picked at the grapery. We do not know the expenses of cultivation and of getting the grapes to market, and therefore cannot give an estimate of the clear profit. But suppose the grapes are sold at the grapery for eight cents per pound, and allow that the gardener estimated the quantity by two tons too much, still the grapes would bring $1,280. The estimate of the gardener was as follows: All the grapes were gathered. More than two thirds were sent to market and weighed. The remainder were unweighed and guessed, as he said, at a low estimate.

Suppose it costs four hundred dollars to take care of the vinery, and pick the grapes for market, and we think this a very high estimate, for one man will not be required to take care of the vines half of the time except during the picking season when extra hands are wanted;) and still there would be a clear profit of over eight hundred dollars. This vinery is situated near the base of a hill in a valley sheltered from winds, in a sandy gravely soil, highly manured. Between the rows of grapes potatoes and other vegetables were grown, enough to in part pay the expenses of cultivation. We were told that all the grapes could have been sold in Canada at 18 cents per pound, and when we were at Naples about two weeks ago, Mr. McKay was at Montreal selling grapes. Yours truly, S. B. Buckley. *West Dresden, N. Y., Nov. 6, 1854.*

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Pride breakfasted with plenty, dined with poverty, and supped with infamy.

Struggling with Limited Means.

We cannot help feeling a sympathy with young people just setting out in life, and struggling under the difficulties of small means to support a newly rising family, and perhaps occasionally with attacks of sickness. It often happens that the first few years of married life are attended with more anxieties and discouragements from these causes, than any other period. Sometimes much valuable experience is acquired at this juncture, but not always without severe cost; and it may be therefore of some utility when suggestions can be afforded by those who have weathered and passed this point.

We have just received a letter from a young correspondent in one of the states of New England, asking advice on this very subject. He says—"I am a young lawyer, making about $400 per year by my profession, and with almost no hope of increase, as the market is overstocked, and I am sensible that I am neither a Kent, Emmet, nor a Story. Having a wife and child to support, I am anxious to try some other business, that will enable me to do so better than at present. Would farming be better?

"I possess a *thorough* theoretical knowledge of agriculture, having at college made chemistry and botany my particular studies, and have for years been a constant reader of the best agricultural books and periodicals, the *Cultivator* included. I have had considerable experience in gardening, and have been very successful. There my qualifications end. I have never worked a whole day in the field, and am too feeble in body to do much labor of any kind.

"About five minutes walk from my house and from the town of B———, there is a piece of land containing 16 acres of good clayey loam, sloping toward the south about 100 feet down to the sea shore, where marine weeds are abundant for manure. It is well fenced, but the buildings are worth nothing. It has been badly cultivated without any kind of manuring. It rents for $50 a year, and may be bought for $1000, on easy terms, say $100 cash, and the rest in 8 years. My whole available funds are about $200—would it be prudent then to buy it? I can hire a good man for $80 a year and board. Produce brings fair prices, and is readily bought up—barley at $1 per bushel, oats 60 cents, potatoes 60 cents, Swede turnips about 40 cents, and hay $15 a ton this year, and about $9 in other years Indian corn we rarely grow, being liable to injury by early frosts. Will you give me your advice? It would not be necessary to relinquish the law altogether—I could probably make $200 by it, and still work my land. H P. K."

In giving advice in such a case as this, it should be borne in mind, that much more depends on THE MAN than on the nature of *the business*, provided the latter is such as to give an opportunity for the exercise of the energies. We have known more than one instance where two men with similar opportunities and means, have succeeded very differently at the same business, one failing, and the other accumulating wealth. Hence we cannot advise in a general way, the purchase of a farm by running almost wholly in debt for it. A few would easily work out, but to most the debt would be likely to prove a long continued and oppressive load It must depend on the management, tact, and *economy in every sense of the word*, possessed by the purchaser in question.

If we were to give *one rule* in business for beginners, which we should place at the head of all others, it would be, "*Feel your way.*" Do not undertake any thing untried, on a large scale, no matter how promising the results may appear. The most uniformly successful men in business, have nearly always pursued this course; and we could on the other hand, name many instances where large and bad failures have resulted from a different practice.

Our correspondent should not give up his practice of law immediately. He must depend on that *mainly*, for two or three years at least, until he gets under way in farming If he could rent the land for two years, with the privilege of purchasing, it would undoubtedly be best. But this, probably, cannot be accomplished. He must therefore take into consideration the probable cost, in addition to the land, of animals to stock it, (for even the smallest farm should have some animals) the expense of a horse or of a yoke of oxen, of the various necessary implements to work it to best advantage, and of proper buildings. A man must be also hired to do most of the labor in the present instance. All these will be found to consume more than the proceeds of the land for the first year or two. If after all these calculations, he can be sure of meeting his interest and other payments, allowing for disasters and contingencies, a purchase may be made.

Great judgment and skill should be exercised in selecting *first*, those improvements which promise the greatest return with the least outlay. On this branch of the subject, a large book might be written. We can only say here, make a list of *proposed* improvements—examine from all the *practical* knowledge that can be collected, and to some extent from limited experiment on the spot, the probable cost on the one hand, and the probable advantages on the other, and then select *first*, those showing the largest percentage of profits. These may be some kinds of manuring—or some cheap and efficient underdraining—or deep plowing of the tillage land—or heavy seeding of the grass land—or the cultivation of certain crops—or the introduction of certain animals—remembering the rule in all cases, "*feel your way.*"

Sixteen acres constitute but a small farm—but such a farm skilfully managed, may after a while be made to produce a considerable amount. Ordinary field crops alone will not be likely even to produce one half of the $400 now made by law practice; but these with fruit raising, rearing fine animals, producing marketable garden crops, and perhaps the more saleable young fruit trees, may with *skilful hands*, be made to increase the product to an almost indefinite extent.

We have heard wealthy farmers assert that not over *two per cent* on the cost of their farms and the capital to stock them, could be fairly relied on as an average for all seasons. But this estimate is made for ordinary superficial farming. We have found by experience, that a better mode of practice, economically pursued, would, without any special trouble, double the products, and triple or quadruple the nett profits. For instance, where a ton and a half of grass are commonly cut, four tons have been produced simply by heavy seeding and plastering; where thirty bushels of corn have been the common crop, seventy bushels have resulted from well applied manure, selected seed, and good cultivation; and where only 200 bushels of carrots or ruta bagas were ordinarily yielded, six to eight hundred have been obtained by performing every part of the operation promptly, in the best manner, and on a deep and rich soil. We have known a gain of more than one hundred dollars a year on a single farm from a selection of the most efficient tools, and proper labor-saving machines. We could also name some farmers, who instead of reaping an average nett profit of only two per cent, make at least twenty per cent; and some of the best farmers of Western New-York, (and doubtless elsewhere,) *clear* from seven to nine hundred dollars from every hundred acres—and in one case, about six thousand dollars have been made in a single season from a five hundred acre farm. The owners and managers of these farms were active, intelligent, and energetic men, of long experience, always in the midst of every important operation, and, we need scarcely add, constant readers of the best agricultural publications of the day.

Preservation of the Sweet Potato.

Editors Country Gentleman.—I notice in your No. of Oct. 26th, some inquiries for the best method of preserving sweet potatoes through the winter for seed, to which I respond, though probably too late for avail this season. My eye fell on the notice but to day. A large branch of our farming is the raising and preserving of sweet potatoes for Cincinnati market. We commence digging them here, the first and second weeks in Oct., or about the time of our first frosts. Hard freezing is apt to injure them as the ends of the potatoes are near or quite at the surface. In digging and handling them we are careful not to bruise them more than is possible to prevent, as it is an injury. They should be dried before putting away, either in the sun the day they are dug, previous to gathering in, or after by spreading on a floor. When the surfaces are dried, we put them in boxes *not more* than two feet deep (other dimensions to suit convenience) till a foot in depth or thereabout, then fill by pouring in dry sand, dry enough to *dust* or *run* well. It is better to be screened as it better finds its way among the potatoes, we then finish filling the box with potatoes to the top, and again pour in sand till all the space is filled and the potatoes covered. They should be kept in a dry room, the less liable to sudden changes of temperature the better, and in an atmosphere ranging from 50° to 60° Fah., but if allowed to sink to 40° or rise to 70° it is no harm if not long at a time. Of the two the high temperature is to be preferred. We put up from five hundred bushels upward each year, and have found by experience that this is the surest method. We cord our boxes one above the other by placing 1½ inch strips between, for them to rest on, and to give space for the circulation of air which is indispensable. With these precautions we can safely calculate that from 95 to 99 per cent will come out in perfect order for market. I have forgotten to mention that the sooner they are put up after digging, the better, if sufficiently dried, as long exposure to the atmosphere is detrimental. Hoping this may be of benefit to your inquiring correspondent as well as others, I willingly tender them the small stock of knowledge I have on the subject, and will, if desired, give a full detail of our mode of propagation and culture, at some future time. Yours for improvement, M. M. Murray. *Fruit Hills, Ohio, Nov. 20, 1854.*

On Making and Saving Manure.

[The following communication was mislaid, or it would have received an earlier insertion. Our correspondent will please accept our thanks for it, and the assurance that both ourselves and readers will be glad to hear frequently from him.—Eds.]

Messrs. Editors—Manure being one of the most important subjects to the farmer, especially away from large towns or cities, a few brief hints on collecting it may be useful.

To save manure by your woodland.—Clear a space in a suitable place in your woodland, and of sufficient size; early in the fall gather all the *leaves* so far as is practicable, which have fallen; lay them a foot or so thick, on the surface of the cleared space; now put a layer of *mould, turf, muck,* the *surface soil of your woodland*—in fact anything or substance which will hold the gases evolved by the decaying leaves—as may be most convenient, over these leaves, and so on, until you have a pile as large as you need. In due time the leaves will have become decomposed, and are in a fit state to apply to your land. Quick lime or unleached ashes, will hasten the process. The earth, muck or turf, answers a double purpose; prevents the leaves from being scattered by the wind, and holds the volatile gases of the leaves.

By Weeds.—Weeds are not altogether useless; for they can be very economically made into manure, thus giving back to the land, what they extracted from the same, as well as that drawn from the atmosphere. All weeds should be cut up by the roots, or drawn up, roots "and all," before they seed, unless you wish to *propagate* them. Gather them together after cutting, and compost them as directed for *leaves.*

By old or worn-out pastures.—If you have a worn-out pasture, a good way of making manure from it, is to plow it out once—then with a scraper, or anything which will answer your purpose, gather it up in a heap, whence it can be taken to the barn-yard, and spread over the same, to retain the fluid portions of manure, composted with barn-yard manure, carcases of dead animals, and other putrescent manure, or composted as directed for the two foregoing substances.

By straw.—With straw, cattle and horses should be kept thoroughly littered, while in their stalls; the yards should also be littered to a good depth with it; and it will be a great advantage if it is first cut. (I will speak more fully as to the uses of straw as manure under the following head.)

By the stables and barn-yard.—The stables of a farm should have proper stercorary or stercoraries adjoining them, with cisterns underneath for retaining the urine of the stock, which should be conducted to them by gutters. These stercoraries may be 3 feet deep, or rather the *pit* of the stercoraries should be from 6 to 10 feet wide, and of an indefinite length. It should have a roof, and be walled or fenced at the ends and *exposed* side, (the other side being joined to the stable,) leaving an opening of sufficient size for conveniently removing the manure. A pump, or pumps should be fixed in suitable places over the cisterns, for pumping the urine on the manure in the stercorary as wanted. Into this stercorary the manure of the stock should daily be thrown, and there composted with turf or muck, 2 or 3 parts turf or muck, to one of the manure. unless you have a large quantity, or a prospect of obtaining a large quantity of pure dung, when it would be for your advantage to use less turf or muck, say 1 or 2 parts turf or muck to 1 of dung. (When I say "a large quantity," I mean *in proportion to the size of the farm.*) Once a week, or oftener, pump your urine on this heap of manure, to *enrich* it, and prevent *fire fanging*. Your *barn-yards* should have a layer of turf or muck, to the depth of 6 to 12 inches, and over this a layer of straw—here you must be governed by the quantity on hand, which will make the depth more or less. The straw by being trodden over by the cattle, and receiving their droppings will be both enriched, and rendered less *stiff*, making it easier to plow into the land. The muck or turf, will receive and *retain* such of the fluid portions of manure as may pass, or be washed by rains, through the straw. A few weeks before using, the straw and muck should be gathered up from the yards, and deposited in a part of your stercorary, left unoccupied for the purpose; twice or three times a week, pump the urine on the straw and muck, which will cause it to ferment, and render it valuable as manure.

Speaking of the value of straw, especially when steeped in urine, the following from Arthur Young proves its efficacy; he says:

"The question relative to long or rotten dung appeared particularly interesting. I therefore compared straw, cut into chaff, and applied to earths in different circumstances for barley; and the earth without any manure, producing grain as 9. The straw steeped three hours in fresh urine, produced as 50; steeped fifteen hours, produced as 63; steeped three days, produced 126; and applied dry, produced 39. In weight of straw and grain, the plain earth giving 48; that of three hours, 120; that of fifteen hours 130; that of three days, 300; and dry, 100."

Those who hesitate about believing the above, will please note, it is not *theory* but *practice*. A good plan of *applying* (permit me to stray from my subject a few lines,) *strawy* and *fine* manure, might be to plow in the *strawy* manure to a good depth, 10 or 12 inches, and the *fine* manure plow in with a *gang plow*, 3 or 4 inches. All *long* manure should be buried deeply with the plow, as it is not available to plants till decomposition takes place, and when buried deep the roots of the plant find it when it is in a state for giving full effect. Whereas, when applied near the surface, the roots of the plants extend out of its reach, before it is of any use to them. So if you wish *immediate* effect from your straw, or long manure, it should be excited to fermentation, as above recommended. But to my *subject*:

Another source of manure is the *hog-pen*. The pens and yards should be kept covered with turf or muck—the excrement should be often removed to a part of the yard *under cover*, and a few grains of corn thrown over it, when you will find the hogs to be "faithful servants," as well as *faithful to their stomachs*.

By the privy.—A most powerful manure is *night soil*, and one near at hand. A most excellent manner of collecting the same, and preparing it so as to be inoffensive to the smell, is given in the June No. of the Cultivator of the year 1854, page 176. I would further suggest renovating it as stated, and composting it with your *fowl dung*, (which by the by should be carefully saved,) adding —if your *smell says so*, a little more charcoal dust, with a little *plaster*. Here we have a manure nearly equal in effect to *guano*, and at a far cheaper rate.

Having already extended my communication to a greater length than I intended, I will conclude by calling attention to another source of manure—*the waste of the house and kitchen*. Every farmer should have, at a convenient distance from the house, a pit or yard surrounded with a stone wall, and roofed,—where should be an abundance of peat, turf, charcoal-dust, or any other fertilizing absorbent. To this pit or yard, and on the absorbent used, should by gutters of wood or stone, (as your ideas of economy may direct; though stone is the cheapest *in the end*, and often in the first instance,) be conducted all the *waste of the house*—*soap suds*, *dish water*, &c.—every thing which can be advantageously used as manure, and can be so conducted.

Now, will any farmer of *common sense*, say he cannot *improve his farm*, that he "*cannot afford it*," when such a *mine of wealth*, in the shape of manure is at hand? It is astonishing "how every little helps," especially when used as manure. Many farmers allow their barn-yard manure to lie and rot, exposed to the leaching of rains, and the evaporating power of the sun, losing two-thirds of its virtue, while by building proper sheds for it, they will pay their cost—and enrich the land at the same time—in one season! And as for the other substances above mentioned, they are as a general thing, *entirely neglected!!* At the same time the farmer is crying out against his farm, his seed, his manure, (*when he does not make use of one tenth part of it!*) his men, his tools, his horses, his every thing, *when he is the only person or thing to blame!!*

Farmers, remember your manure is your *gold*, and your farm your *mint*. The more gold you furnish your mint, the more coin (*i. e.* crops) you withdraw therefrom. T. K.

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Transmutation.—Clover is a biennial plant, and is (in this section) invariably succeeded by timothy —timothy generally by red top, and red top by June grass. If the transmutation doctrine is erroneous in this case, why will not this rotation follow where no clover is sown? Can you inform me? C. B. *Guilford.*

Does our correspondent mean to say that clover turns to timothy and the timothy to June grass? The Bible informs us that each seed shall produce its own kind, and we have never known an authenticated instance in nature, which contradicted this assertion.

A Place for Every Tool.

"In vain the search:
Nor hoe, nor spade, in its own place is found."
EDWARDS.

Every body, who is any body, likes to see *system* and *order* displayed in the various operations of the farm; and even the most careless and negligent, admire, and *approve* the practice of him who has an appropriate place for every tool, and who strenuously insists on *keeping them there*. "A place for every thing, and every thing in its place," is a maxim, coeval with the art of printing, for aught I know;—and we find, many times, that those who often insist on having this precept carried into practice, come the farthest short of keeping it themselves. Many farmers fail, greatly, in keeping this precept; and in time lost, patience tested, and the many hindrances which result therefrom, they are often obliged to suffer a mortifying penalty.

Ask Mr. A. where he keeps his hand saw, or his augers, or pick, crow-bar &c. "Well, let me think—where did I use them last! Look in the wood house. If they are not there, look in the carriage house; and if they are not to be found there, let us see if they are not some where about the barn, or in the stable." Mr. B. says, I usually keep my tools, either at the house, or barn, or in the path that leads from one to the other. When I have done with a tool, it is thrown in the path that leads from the house to the barn; and it generally gets carried to one place or the other. There being generally, such a destitution of *order*, in reference to keeping tools in their appropriate place, it is deemed a matter of no impropriety to speak of the *order* and arrangement, in the disposition of the various tools of the work shop, and farm, which is practised by a young farmer, not a hundred miles distant from the residence of the writer.

Ask him, for instance, where his hand saw is; or his drawing knife; or his augers; or any other tool you may need. And the unhesitating reply is, in such a part of the shop, hanging on such a pin, or nail, or standing, or lying in such a corner, or, on such a shelf. There hang the augers, each one in its appropriate place; and on all the premises, they are allowed *no other place*. There hang a half dozen saws; and if one of them is taken down, but for a *moment's* work, its first and last resting place is, *on its own peg*. There is a drawer with an apartment for screws, one for rivets of a half dozen different sizes, one for washers, for bolts of all sizes, one for nails of different sizes and so on. In one corner is a shallow box-shelf, where are a lot of carriage bolts, and other bolts, and where every thing in the bolt line is kept, in case of a break down. There hang a number of extra plow-handles; in case one should be broken, in seed-time, a half day need not be spent, in going several miles, to have it repaired. Extra pieces of harness, pieces of worn-out or broken tools, hang on nails, on one side of the shop, where, at a glance of the eye, any thing that is wanted to repair a break down, can be had, without tumbling over a whole box full, to find something, which, perhaps, may not be there. There hang a variety of useful little articles, instead of being tumbled into a box, where they can never be found, when needed. There hang the chains, (not on the fence any where on the plantation) in that corner. There the beetle and wedges are kept. Are there any extra plow points about the shop?—you will find them, up-stairs, in such a place, and *no where else*. Every one who assists about the barn and stables understand that this shovel, when not in use, must stand in that corner. The manure fork must be kept *here*. That fork and that shovel, in the feeding-room must always stand in this end of the box, where feed is mixed. This fork must be left on the mow, and when not in use, the end of the handle must be rested on the ladder, so that one always knows, even in the dark, where to find the fork, to throw down fodder. That harness, and that collar belong on that horse; and they must always be hung *on that hook*. When the halters are taken off the horses, each halter is hung on its appropriate hook. A score of other little things, which are generally thrown here and there, by the majority of people, have *their own place*, and will always be found there, when not in use.

Where there are a large number of workmen, and boys to use the tools, it is just as easy to keep them in one place, and *far more* important, as where there is but one, or two individuals to use them. Let it be understood by each one, that *every tool must be returned to its proper place, immediately*. When an augur, or chisel is needed ten or twelve rods from the shop, let it be returned, without delay. It will require but one minute to travel ten rods; and if one *is* in haste, at such a time, one or two minutes will make no material difference in the work of a day; if it *were* like to do so, who could not work one or two minutes *later* at night to redeem those lost moments? And, besides, when tools are laid down, here and there, thinking to return them, when it is more convenient, they are often forgotten, and scores of minutes are lost in search for them, even when one is in the greatest haste. There is always a great satisfaction, when one needs a certain tool, in having the assurance, that the hand can be laid *directly on it*, even in the dark.

Those farmers who succeed best in their operations, are noted for their strict adherence to *system* and *order*; and those who set at naught all order and system, are always in a hurry—never know where to find any thing—never have a place for any thing, except somewhere on the farm, and they never accomplish but little in comparison to what they might, were *system* and *order* their watchword. S. EDWARDS TODD. *Lake Ridge, Tompkins Co., N. Y.*

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CHINESE PIGS.—In looking over the *Country Gentleman* of this week, I see an inquiry made for pure Chinese Pigs. I have a few pigs, the produce of a pair sent direct from China by Dr. Green, surgeon of the Japanese Exploring Expedition, last winter. I would be happy to supply gentlemen with a few pairs at a moderate price. BENJ. HAINES. *Elizabethtown, N. J., Nov* 17, 1854.

Judging of the Flavor of Fruit.

"Who shall decide when doctors disagree" on the flavor of certain fruits?

There is a great deal of contention and dispute in the pomological world, on the merits of certain new sorts, and the reading public is often very much at a loss to know how to decide in cases thus made difficult. Hence, at least in part, the differences of opinion in relation to the quality of such new famous varieties as the Concord and Diana grapes, the Onondaga and Monarch pears, &c. We have had occasion often to observe the great difference of estimate, resulting from external circumstances. In one case, an individual attends one of our fairs, after traveling a long journey where no fruit is to be had, and by which his appetite is sharpened to a high degree. A third rate fruit is handed to him, and hunger gives it a delicious flavor. Another individual on the *fruit committee*, examines every thing delicious, and becoming thoroughly sated, the same fruit is pronounced by *him* utterly detestable. Both are perhaps editors or reporters, and their readers are of course very much puzzled, when they see such contradictory statements.

We observe a statement in a late number of one of our best papers, that the Newtown pippin is the only variety of apple that *improves* in flavor by crossing the Atlantic. An American in passing through Marseilles, observed some Newtown pippins for sale, which had found their way from New-York through Liverpool. He paid fifteen cents each for them, and on tasting them, found them *more delicious* than any he had ever met with in America—he was a good judge of fruit. Can any one doubt that a sharpened appetite imparted to them much of this fine flavor?

The men attached to Long's Expedition to the Rocky Mountains, found a wild grape which they regarded as far superior to the finest Hamburghs and Sweetwaters. A plant was procured and placed in the hands of a skillful cultivator at Philadelphia. When it bore, every one who tasted it pronounced it utterly unworthy of cultivation. So much for the difference between the starvation of the western wilds and the luxuries of the east. In another instance, a botanical friend found a superb wild grape as he was traversing the Alleghany mountains, where he had not tasted any fruit for days. When it fruited in a garden in western New-York, it was found no better than the wild austere frost grape.

The reason, then, that doctors disagree in their estimates of new and rare fruits, is owing to the difference in circumstances in which they perform their examinations. And the way to prevent such disagreements, is a very simple one. Always provide specimens of standard sorts, to taste side by side, before undertaking to pronounce with precision on the relative quality of those that are new and untried. This will prevent many blunders, if always followed.

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A box 24 inches by 16 inches square, and 28 inches deep, will contain a barrel, (5 bushels.)

The Schuyler Gage and New Plums.

Mr. Tucker—As I promised to furnish you with the history and description of the new varieties of plums exhibited by me at the State Fair held at New-York, I commence first with the

Madison Plum.—This fine seedling, so highly recommended by the Fruit Congress which met at Philadelphia I think in 1849, was raised by that celebrated plum grower, the late Isaac Denniston of Albany. It came into bearing in 1848, and on the 16th Oct., 1849, I saw and ate its fruit, in company with Mr. Sanford Howard, who then remarked to me that it was a plum which, if grown for market, would pay enormously, being so late and beautiful a variety. I accordingly procured scions the following spring—very fortunately too,—as the succeeding summer the tree from an unknown cause, died. Its size rather above medium; color, rich yellow with carmine cheek; bloom whitish; freestone; flavor, very rich, sugary, sprightly and fine. Season, October. A fine grower.

Schuyler Gage.—This is one of the most beautiful and desirable of plums, on account of its lateness—being eaten by me the past season when the snow covered the ground. It never suffers from the attacks of the curculio, like most other varieties, which fact immeasurably enhances its value with me, being always sure of a crop. It was raised by Gen. Schuyler, of Revolutionary memory, from the Green Gage, and was esteemed by him so great an acquisition that he never disseminated it; but gave to his rival fruit-grower, Isaac Denniston, buds of the Green Gage as it. Mr. Denniston always believed it the Green Gage, saying he obtained buds of Gen. Schuyler himself, which, when fruited, was none other than the Green Gage. So choice was this variety with the General, that none but his intimate friends were at his table served with them, and when solicited by them for scions, some other variety was substituted. Mr. Denniston frequently alluded to the strife which prevailed in the days of Gen. S., to obtain and exclusively possess varieties of choice fruit, and the petty tricks resorted to when applied to for them—he having been for years duped by them.

After the death of Gen. S., the late John Bryan purchased the grounds, and finding an aged tree of this variety, grafted from it. Soon after the death of Mr. Bryan, the grounds came into the possession of Mr. E. C. M'Intosh, to whom we are indebted for making known this long heard of variety. In the fall of 1847 or 1848, Mr. M'Intosh brought to Mr. Howard and myself, some plums to identify. Being unknown, we visited Mr. Denniston to have them named, but without avail. At the request of Mr. M'Intosh we soon after visited his grounds to learn more of this variety, and there learned from a daughter of the late John Bryan, its name and history. It was raised about 1800, (as stated above,) from the Green Gage. During the lifetime of her father, he never disseminated it, nor would he permit it to be done. We thus see why this choice fruit never was made known while possessed by two such peculiar men—remaining in their possession full half a century; and why all pomologists have erred in calling it a synonym of the Green Gage. The fruit is medium size, long oval; skin golden yellow, dotted and washed with carmine; bloom white; stem 1½ inches long. Flesh yellowish, quite juicy, high-flavored, luscious, sprightly, fine. Stone free. Season from 15th Oct. to 15th Nov. An erect grower.

The Wax Plum is a new seedling raised by me and shown at the State Fair in New-York. It is a quite late variety, ripening during the month of Oct., when light-colored plums are gone. Its parents I believe to have been Bleecker's Yellow and Denniston's Superb, favoring more in its outline and stem, the Bleecker than the Superb, and in the growth and productiveness of the tree. Fruit large size, slightly oval; stem quite

2 inches long and hairy; color the richest yellow, mostly covered with carmine; bloom lilac; flesh greenish yellow, juicy, firm, saccharine, with a sprightly, very pleasant flavor. Free stone. Season October.

Howard's Favorite, is another seedling raised by me, and named after **Sanford Howard**, from the preference shown by him for it, whenever he visited my grounds. What either of its parents were, I am unable to tell. It is a profuse bearer, yielding me this *dry* season, 2½ barrels of fruit. It possesses a peculiarity which greatly enhances its value for my bleak grounds, that of resisting the gales of summer. Indeed so great is its tenacity, that it is impossible to knock them off without breaking the fruit spurs. It is a continuous ripener for some six weeks. A very handsome grower, forming a fine rounded head. Leaves deep green, very large and crumply. Quite ornamental. Fruit large sized, jug-shaped; stem 1½ inches long, inserted in a rim like the egg plum; color rich yellow, dotted and shaded with carmine; bloom lilac; skin thick; flesh rather coarse, but very sugary, rich and delicious, clinging somewhat to the stone. Season Sept.

Henry Clay—another seedling raised by me, and bore fruit first in 1852. It was raised from pits of Howard's Favorite. Of large size, considerably more so than its parent, being broader and heavier. Color bright yellow on sunny side, with carmine cheek. Stem quite long, near 2 inches in length, slightly sunken; bloom whitish; skin tough; flesh yellow, rich, sugary, delicious. A noble plum, both in size, quality and beauty. Half cling and half free, like its great namesake. It was named by Dr. **Warder** of Cincinnati—deeming it worthy of so honorable a name, and so appropriate to his character. Season 1st Sept.

The five preceding are not excelled for productiveness. For beauty I know of none that can compare with them. For quality they are not excelled by any, and for lateness, where can five varieties be found that will furnish fruit for a period of 2½ months?

Lady Plum is another seedling raised from the Mirabile. It is quite a pretty fruit, esteemed highly for preserving—this being its chief quality. It is a rampant grower—leaves small and pointed. An abundant bearer. Fruit quite small, oval; stem short and stout; color greenish yellow, spotted with brown; stone free and small; flavor acid. Season last of Sept. **Elisha Dorr.** *Albany, Dec.*, 1854.

Sheds for Cattle.

Where farmers have been obliged to stack out fodder, and feed it to cattle without any shelter, I would recommend the following: Enclose a yard of suitable size for the amount of stock to be kept, (as small as possible recollect,) by the side of your stacks, with a temporary shed made by running a tight board fence for the back, and some old boards or rails *shingled* with straw for the roof, which may be supported in front by putting down in front a good stout rail once in 10 or 12 foot. Let this stand on the north side of your yard, and if possible get water enclosed in it, so the cattle can remain in all winter. Keep the yard well littered, and I will warrant you just 5 times the quantity of manure in the spring to draw out and put where you want it, than you could have had to let your cattle *run* at stacks, dropping their manure promiscuously, and probably just where you *don't* want it—saying nothing about their more comfortable quarters. Such a shed can be built in a short time—my man and I put one up 60 ft. long and 12 wide in one day. **W. J. Pettee.** *Salisbury, Conn.*

Ashes for Old Orchards.

Will you or some correspondent of the Country Gentleman, who may have had practical experience in the application of the best portion of the waste ashes and sand from a foundery as a top dressing for crops, and more especially to an orchard—state its properties on an old orchard requiring renovation? Truly yours, **B. J. Whitney.** *Worcester, Mass.*

We have always found a moderate application of ashes, or still better its successive application as each is dissolved and carried into the ground, very beneficial to apple trees, increasing their growth and the size of the fruit. And this we believe is the experience of others. On poor or moderately fertile land, a free use of yard manure must not be forgotten as a main reliance. There may be portions of the country where from peculiarity of soil, ashes may be of little or no use, which can be only learned by making the trial.

Shipping Apples to Europe.

It is familiar to at least a portion of our readers that the most successful exporter of apples from this country, **R. L. Pell**, of Ulster Co., N. Y., owes a considerable portion of his success to careful picking and careful handling. The fruit is picked, one apple at a time, from the tree—when transferred from the hand-basket to the larger one, only *two* are taken at a time by hand. These baskets are then drawn, not even on a spring wagon, but on a *sled* to the building for storing, so as to secure them from jolting. When packed in barrels, they are again taken two at a time by hand. They are drawn on a *sled* to the North River, and *lifted* by two men on board the steamboat to be taken to New-York and shipped. When lowered on ship-board, they are caught, one at a time, on *men's shoulders*, and *carried* carefully to the coolest part of the ship At London, they are carried by two men on a *hand-barrow* with the same care that we carry a costly looking-glass. With these precautions they arrive in London in better order than market apples usually reach our own cities, and having been carefully selected, sell for ten dollars per barrel, and sometimes as high as twenty.

Few of our farmers, it is true, send their apples across the Atlantic; but would it not repay them well to exercise the same care in handling them for home market or domestic use? Why are so many compelled to pick over their apples several times in the winter, and remove the decayed ones to save the rest from their infection? Plainly, because they are hammered and bruised so carelessly during gathering, and during the process of tumbling them from basket to barrel, and barrel to basket. So much for a passing suggestion.

The American Agriculturist furnishes in a late number, some facts in relation to shipping apples. The deck of the vessel is found the best place to deposit them; under deck they do not keep well—and to secure them from the dashing of the salt water, the barrel should be tight. Three or four quarter inch holes are to be bored into the head for the circulation of air and escape of moisture. Sail vessels usually charge 30 to 50 cents per barrel for freight, and steamers four times as much. Commission and charges in England are about $1,00 per barrel.

The same paper states that next to the Newtown Pippin, the following varieties succeed best for shipping,—which may be borne in mind by those planting orchards with this view:—Baldwin, Esopus Spitzenburgh, Tompkins County King, Lady apple, and Red Canada. Rhode Island Greening, Roxbury Russet, and Swaar, have not succeeded so well.

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The Apple Worm.

Editors of the Country Gentleman—I am glad that the subject of wormy apples is attracting attention, and am pleased to see a communication on it in a recent number of your paper, as the views of your correspondent accord with a theory of my own, formed some years ago. The subject is one of great importance. In the northern parts of New England, where the apple does not grow to the same perfection that it does in more genial latitudes, apples are only occasionally wormy. But in the western part of New-York, and particularly in the county of Chautauque, on the south shore of lake Erie, where it grows to large size and of the best flavor, its enemy the apple worm, or the insect which produces it, seems to be correspondingly vigorous and destructive, so that sometimes out of the produce of a whole tree of apples that for size and flavor would astonish a Vermonter, hardly one apple can be found not perforated by the worm.

Some years ago I observed, that of the apples furnished me by a farmer on whom I was dependent for my supply, not one was wormy, and I expressed to him my gratification and surprise. He assured me he never had wormy apples, and that others need not here, if they would manure their trees as he did. He said that his practice was, in the spring of the year, to carry out his straw and refuse hay, and spread it under his apple trees and about his orchard, and then turn on his cattle, let them eat what they would, and tread the rest into the ground, where it decomposed and made manure. I saw at once the importance of the fact, but concluded my friend mistaken in his deduction. I thought it much more probable that the mischief was done by some insect that burrowed in the ground under the trees in the winter, and that the weight of the ox treading up the ground at the season when it freezes at night and thaws out days, was a means peculiarly fitted to destroy it, and leave the apples free from its ravages. This fact supports the views of your correspondent. The insect is not propagated from the apples that come to maturity, and are gathered and carried away, but from such as fall prematurely and decompose on the ground under the trees. It must find an abiding place somewhere until the next year when it is to begin its ravages. And where so probably as in the ground under the tree, nearest the point where its future operations are to commence?

I have never been able to test my theory by experiment, but I have no doubt of its correctness, and commend it to the consideration and trial of all farmers, whose orchards are visited by the pest.

Hogs running in the orchard in the summer and fall to eat up the immature fruit as it falls, would protect no doubt an orchard to some extent, but not entirely, as probably some portion of the apples infected, fall so early that they would escape the notice of swine. I would also suggest whether the curculio and other destructive insects may not be destroyed in the same way. E. Ward. *Silver Creek, N. Y. Nov.* 15, 1854.

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Work for the Winter.

When spring comes every good farmer will have a plot or field or garden, or orchard where he can *profitably* apply all the manure he can save or make during the winter. Every shovelful of manure judiciously applied will increase the amount of his harvest. Now is the time to think of this, and to make arrangements and preparations accordingly.

Let all manures be put under cover or sheltered as much as possible. Save carefully all the droppings of hen roosts and poultry as this makes a near approach to guano. By the use of methods more than once named in this paper deodorize the contents of privies, &c., and convert into rich poudrette. Let those near the seashore collect sea-weed and if they use it on their crops of potatoes report the result. Let those who live near saw-mills draw home and put under cover loads of sawdust. This may be used, to good advantage, in absorbing the urine of horses and cattle, and retaining the fertilizing ammonia which they contain. Sawdust and dry meadow muck well saturated with urine will be a fertilizer almost equal to guano. It may be mixed, when spread on the crops, with plaster. Lastly, at present, save all the bones you can and make your own superphosphate. Your next harvest will pay you for all your trouble.

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Killing Canada Thistles by Deep Fall Plowing.

Messrs. Editors—More than twenty years ago, I undertook to plow a field of ten acres in the fall, for the purpose of killing Canada thistles. It was a light gravelly soil, having an easterly descent of about five degrees. I plowed one half of it in the fall as deep as could well be done without subsoiling. The other half I plowed in the spring, and then cross-plowed the whole field and planted it to corn. On the half plowed in the fall, the thistles were very few the next season. But for the effect of fall plowing on the corn. During the growth of the corn, there was but little perceptible difference in the two parts of the field. But when the corn was picked, the ears of corn were found to be more numerous and much better filled out on the part of the field plowed in the fall. I now unhesitatingly advise farmers to plow their light lands in the fall for the double purpose of killing thistles and of enriching the soil. All gravelly soils as well as clay, contain more or less of vegetable food in a latent and unprepared state for the use of the vegetable. The effect of freezing and thawing, during the fall, winter and spring, together with the action of atmospheric agents, prepares these latent elements for the use of the plant Unless the land is hilly and steep, the washing will not do as much hurt as the fall plowing will good. J. L. Edgerton. *Georgia, Vt., Nov.* 15, 1854.

The Food of Plants.

Messrs. Editors.—In a late number of your paper, I read an article signed "W.," which touched upon a problem I have never yet seen entirely solved. The problem is this :—How is it that farms, treated as farms generally are, and undergoing the drain that they do of both organic and inorganic materials, are enabled to maintain so long, so fair a degree of fertility? Several reasons have been given, but no one singly, nor all combined, can fully account for the strange fact that our fathers and grandfathers have raised and sold off of their farms, thousands of bushels of grain, and tons of butter, pork and beef; and after having applied the merest trifle of foreign manure, and often exhibiting the greatest carelessness in husbanding even their own resources, are able to transmit those farms to us with harvests nigh as golden, and meadows covered with nigh as rich a verdure.

Your correspondent makes a still stronger statement, for he says that, judging from census returns, "the soil of the state is not running out but improving a little." And even this statement is confirmed by the experimental testimony of some of the best farmers throughout our land. But a few days ago I was conversing with a very intelligent and observing friend who said as follows—"Thirty years ago when I commenced on this place of something over a hundred acres, I could scarcely keep a dozen cows although a fair proportion of land was always kept down in grass. Being confident that its resources were not exhausted, I set to work to see what could be done. I endeavored to exercise great care in all respects, according to approved methods, and had the satisfaction of seeing my corn cribs gradually fill up, and each succeeding summer to notice more and more 'hay over.' I began to increase my stock at the rate of a cow every year, and to fat an increase of pork, until now I can keep near thirty cows, and yet raise more grain than I did when I commenced. Almost the only fertilizer I have purchased was plaster, and if called upon to give the secret of it all, I should say it is on account of the miserly care with which in every respect I have husbanded the manure which the farm itself produced."

But, ye men of science, this is the question—the inorganic or mineral part of that farm's products for the last five years, where were they when that man began? Do you reply that they were all locked up in the soil, and needed only the key of careful culture to unlock the treasure? If so, I would enquire again—if the amount of mineral matter in the soil cannot of itself be made to increase, how came it to happen that the agriculturist whom we have just noticed, by increasing the amount of farm products, and thus making a greater draft at the mineral, did not discover his land gradually running down? The rationale of "W." in regard to spring water holding mineral matters in suspension can explain but little here, for his land is not springy, but mostly good sound loam, and where a spring does burst out it is conveyed immediately off in a good ditch. Now, if called upon to express an opinion in explanation of this point, I should say, first, that by growing long tap-rooted plants mineral matters are brought up from the subsoil. 2d. By the gradual mouldering away in the soil of rocks and stones, caused by the influence of the sun, air and frost, and the abrasions of the plow and harrow, new mineral elements are made ready for plants. 3d. During severe drouths when the ground to some distance below the surface is dry, by the laws of capillary attraction moisture is drawn from a great depth and mineral solutions along with it. For this reason, observing men say that the year after heavy drouths is always productive. I believe that in the air, in a gaseous form, exist all matters that are found in the soil, mostly organic, but a proportion of inorganic likewise, and that in the great laboratory which nature has established in the earth and sky, there are processes which as yet have eluded scientific research. Phosphoric acid gas has in small portions been found in the atmosphere. Now why may not this descend into the bosom of the earth, or be drawn in by the mouth of the plant, and in some (to us) unknown way unite directly with lime and thus form the phosphate of lime so essential to almost all forms of growth? And thus with every form of mineral matter required. It may be carried off to fill the hungry mouths of the ten thousands in our cities, but a kind Providence, acting through nature, which is ever bountiful, notwithstanding the improvidence of her children, may ordain it to return to the valley it left, and prepare it to resume its eternal round of errands of mercy. James O. Miller Jr. *Montgomery, Orange County.*

PLANTING ASPARAGUS.

Messrs. Editors—Will you please to inform a constant reader of your most valuable paper, which is the best time and best soil for asparagus. H W. K. *Middletown, N. Y.*

The plants should be set as early in the spring as the work can be performed. Set in the autumn, they are liable to be injured or destroyed by winter. The *seeds* will grow best if sown in the fall as soon as ripe. The best *soil* is one made rich by a copious use of manure, well and deeply mixed with the earth. If sufficiently drained or not liable to be water-soaked, either a heavy or light soil will answer. The ground can be scarcely made too rich, the size, sweetness and tenderness depending greatly on this quality. That particular sort of asparagus known as *Giant* asparagus is nothing more than the common sort on a highly enriched soil, and under good cultivation. The large size of the shoots depends greatly on *not crowding* the plants together—hence it is better to plant in drills, and not in beds.

* * *

Maryland State Ag. Society.—At the recent meeting of this Society, C. B. Calvert, Esq., who we believe has been its President from its organization, having positively declined a re-election, J. T. Earle, Esq., of Queen Anne's County, was elected President for the coming year. J. H. McHenry, Baltimore, is the Cor. Sec'y, Samuel Sands, Rec. Sec'y, and J. H. Luckett, Treas.

That Cow Cherry.

Messrs. Editors—Cherry of New Scotland is doubtless a very good cow, but St. Lawrence is a very great county, and can beat the state in dairies, and we may add in cows too, Cherry not excepted.

The pretensions of this cow have been so often paraded in your columns, that it is proposed to "divide honors" with her.

Let us see, she calved Sept. 28th, and commencing thereafter, Oct. 2d, in the full flow of her milk, and very likely fed on slop, roots or extra feed besides grass, she yielded in 28 days 46½ lbs. of butter or 1 lb. 10 4-7 oz. of butter per day.

At the fair of St. Lawrence county, prizes were offered in three classes for the six best dairy cows owned by any one person, and of the *eighteen* successful cows, Cherry would have found her match in either of them.

Due proofs, as required by law under oath, were submitted and are in my possession, of the products of these cows. Their *feed was grass only*. The milk of each cow was measured, and weighed at each milking, and the product of each cow was separately churned and weighed where used in butter.

The pastures of this county suffered severely the past season from drouth, and the feed was much better from the first of October than from the first day of July to October. Our grounds were parched and red, and yielded scarce any feed during the summer months and September. Also will be borne in mind the time of calving.

We take the cows of Edward M. Shepard of Norfolk, being his *entire* herd.

No. 1. Ayrshire, calved in May—yielded 1st week in July 16, lbs. butter per day—2 lbs. 4 4-7 oz.

No. 2 Ayrshire, calved June 20th—yielded 1st week in July, 14 lbs.—2 lbs. per day.

No. 3. Ayrshire, calved early in May--yielded 1st week in July, 15 lbs.—2 lbs. 2 2-7 oz. per day.

No. 4. Ayrshire, and Durham, calved May 3d—yielded 1st week in July, 12 lbs.—1 lb. 11 3-7 oz. per day.

No. 5. Ayrshire, and D., *Farrow*—not tosted 1st week in July; tested 2d *week in Sept.*—yielded 12 lbs. 2 oz. butter—1 lb. 11 5-7 oz. per day.

No. 6. Durham, calved April 20th—not tested in July; tested 2d *week in Sept.*—yielded 12 lbs. 4 oz.—1 lb. 12 oz. per day.

Nos. 1, 2, 3, and 4 gave the second week in September, 11 lbs. 6 oz.; 13 lbs; 12 lbs. and 10 lbs. 10 oz. of butter respectively, from pastures sun-baked as red as "Cherry" herself.

The twelve remaining cows, which drew premiums were owned, six by Mr. Moses Tuttle of Canton, and six by his brother Mr. L. Tuttle, either of whom would be pleased to compare with "Cherry," but as their cows were selected from their large dairies, it is perhaps better to take those cows not holding such chances.

Here then we give you the product of six cows, belonging to one man, and taking his whole yard, either of which, (and one *farrow*) yielded far larger products than this famous cow, Cherry.

We can give through this Society, *single* cows with which Cherry cannot compare, but the above is better, for the attention of dairymen is here turned to the breed of the cows used, and is not a mere casual or accidental result as *may* be the case with "Cherry."

Very truly yours, H. G. Foote,
Sec'y St. Law. Ag. Society.
Ogdensburgh, Nov. 27, 1854.

Mediterranean Wheat.

Mr. Tucker—I noticed an article in your valuable paper, relative to the value and culture of Mediterranean Wheat by F. D. C. Now my experience and observation lead me to differ from him in some respects. I regard it as earlier than most other varieties, especially when grown on heavy soil. I have known it to ripen more than a week earlier than the red Bald (so called among us) or the Canada flint, and think it less liable to the ravages of the weevil. I am aware that it does not yield as greatly as some other varieties, when we are fortunate enough to have them do well, but as a general thing I think it by far the safest for a crop. Three-fourths, if not nine-tenths of the wheat raised in this country is the Mediterranean variety.

As to its value *now*, I view it as quite different from what it was when first grown here. I have the testimony of our millers as well as my own experience to sustain me in saying that this wheat sown on early soil, if cut before fully ripe, will amply repay the farmer with a quality of flour not surpassed in flavor by any in market, and will compare favorably with the best white varieties. I am confident this wheat yields a greater and better quality of flour than it did ten years ago, in this section at least. J. N. A. *Duchess County, N. Y.*

Experiment with Guano on Corn.

Sir—"A young farmer of Maryland," inquires in regard to applying guano to "clay land." I have tried it in clay land that had been in grass for five years. On one half the field, I plowed it in to the depth of about seven inches, and on the other half harrowed it in, and planted it all to corn, and staked off an equal number of hills from each part. It all came up equally well, but by the early part of summer there was a marked difference in the two parts of the field, which continued throughout the season; and upon husking, that which had been plowed in (and staked off upon planting,) produced nine bushels, while that which had been harrowed in, produced but five bushels, showing the advantage of plowing it in, even in heavy clay soil. The soil was a slate, and the amount used about two hundred lbs. to the acre. Chester Co., Pa.

Our correspondent has our thanks for the above. It is just such facts that are wanted. We hope he will furnish further results of his experience and observation for our pages.

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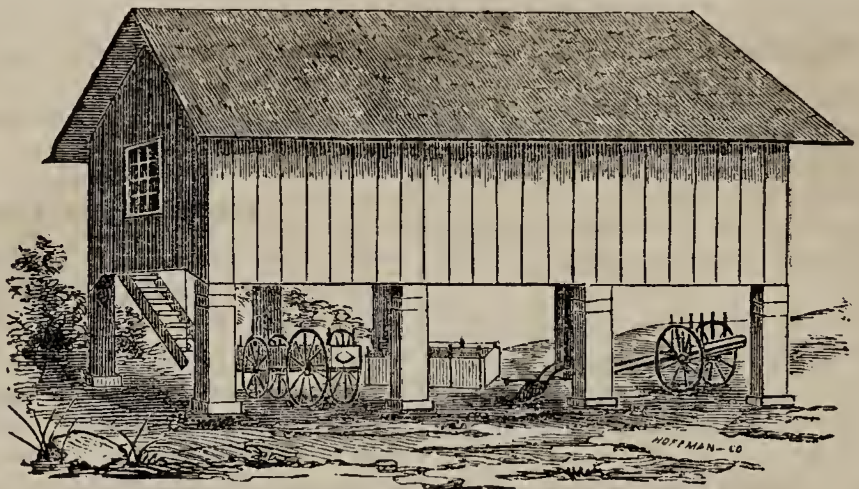
Fine Apple.—Mr. E. R. Ball of Nassau, has presented us some seedling apples, which are in eating at this time. They are slightly acid, of good flavor, and worthy of preservation. Mr. B. proposes to propagate it, at least so far as to give it a fair trial under favorable circumstances.



Plan of a Granary.

Messrs. Editors—Some weeks have elapsed since I promised a reply to your request for a plan, &c., of a Granary and Wagon-shed; but circumstances beyond my control have prevented an earlier fulfillment of my promise. I now, however, wish to bring to the notice of farmers in general, what I esteem a very complete plan of one of the most important buildings in the farm establishment, and submit the following plan and elevation, together with the sketch, for your approval.

My granary was erected in the earlier days of my apprenticeship in agriculture, when I had not yet learned to appreciate the importance of keeping accurate accounts of all farm expenditures. I am therefore unable to furnish your correspondent with the expenses of erection; but I think it will come within what he proposes as his maximum limit of outlay.

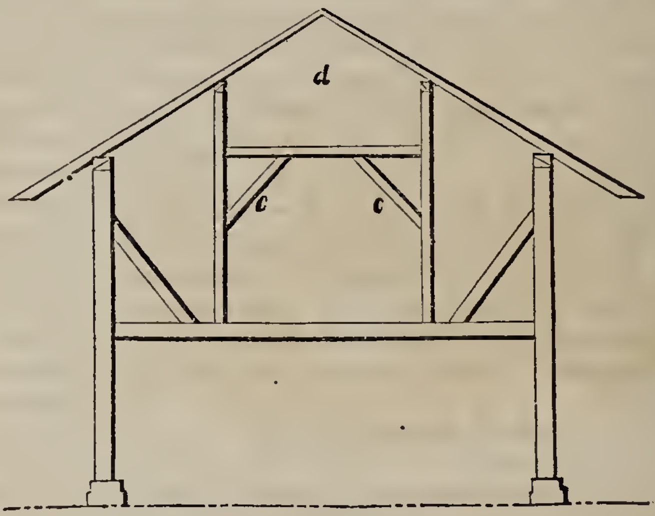
You will observe the posts are placed upon blocks of granite. These are sunk three feet in the ground, and rise fifteen inches above it; the former is to resist the action of frost; the latter to prevent decay in the foot of the post, from the effects of moisture from the earth, this having been determined as the necessary height.

DIRECTIONS FOR BUILDING.

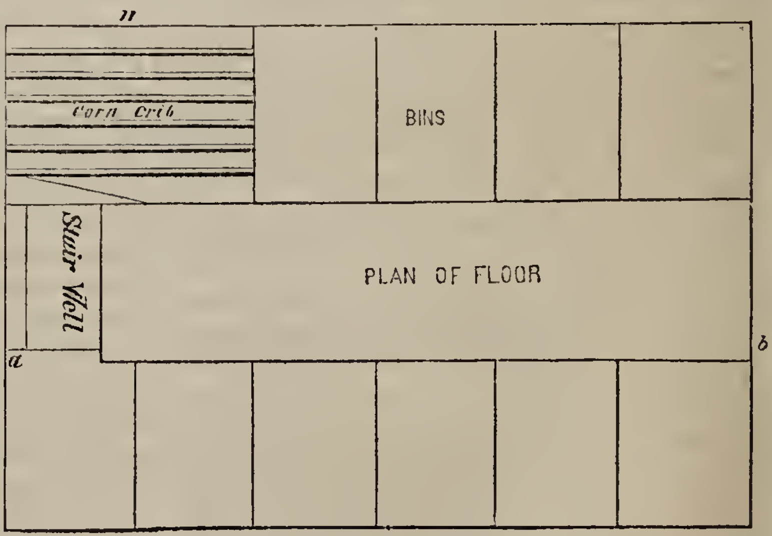
Building to stand north and south, for purposes of ventilation. One window in each end, 12 lights 9 by 12, under gallows girt. The space *d*, in elevation of end, to be floored for storage purposes. The braces *c*, *c*, to be dispensed with in the two middle bents.

The bins to be lined with half-inch stuff, jointed only. The bin posts should be plowed, that the bin boards on the hall may be taken out, or slide freely up and down, to lessen the labor of filling and taking out grain.

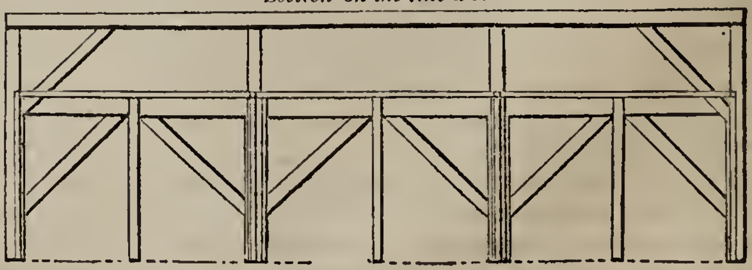
The floor timbers should have a slight camber on the upper edge, to prevent the floor from becoming concave by the bur-



Elevation of End.



Section on the line a b.

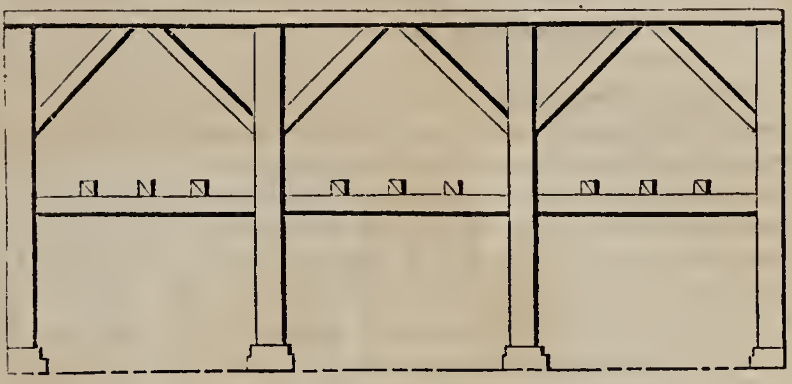


then it may have to sustain. The building should be well framed, to enable it better to resist the force of the wind, to which it is very much exposed by its peculiar build.

The posts are to be provided with a belt of tin one foot below the inter-ties.

The siding of the corn crib at *n*, to be made of strips, 2½ inches wide, and placed one inch apart, same as floor.

The corn crib should be placed in the south-west corner, if possible, or better, perhaps, in that exposure which would best protect it from the prevailing storms of the district of country.


Elevation of Side.

The stairway is closed by a trap-door, the steps hung between the two first floor timbers, which are placed three feet apart for that purpose ; hooks are secured to the end of each side strip, and caught into staples on the inside of the timbers. These serve as hinges ; and the other end is sustained by a counter weight, when they can be let down or put up at pleasure, thus cutting off access to rats and mice. Thos. B. Arden. *Beverly, Put. Co., N. Y.*

Our New Publication.

The Illustrated Annual Register of Rural Affairs and Cultivator Almanac for 1855, containing Brief and Practical Suggestions for the Consideration of the Farmer and Horticulturist, embellished with One Hundred and twenty Engravings, including Houses, Farm-Buildings, Implements, Domestic Animals, &c. 144 pp. duodecimo.

This work is now ready for circulation. We flatter ourselves that its typographical taste and mechanical execution have been seldom equalled and never excelled in publications of the kind. In regard to its contents it is sufficient to say that they have been prepared by Mr. John J. Thomas, of Macedon, N. Y., author of the "American Fruit Culturist," "Farm Implements," &c., &c., with the usual taste and ability which mark his works. His chapters on Country Dwellings, Improving and Planting Grounds, the Culture of Fruit, &c., embrace suggestions and directions that cannot fail to interest and profit every resident in the country, treating as they do of the chief means by which Rural Life is rendered attractive, and a Rural Home comfortable and pleasant, and containing more information on all the accessories of a country dwelling, than any other publication with which we are acquainted has ever supplied, in so small a compass, and with such variety of illustration.

Our purposes in the publication of the Annual Register cannot be better expressed than in the following extract from its preface :

" It is intended to offer, in the present and succeeding issues, in a plain, simple and intelligible form, (rendered more so by ample illustrations,) the best information in relation to all the principal details of Modern Improved Farming, according to the most approved and established practice of the day, and to afford such hints on Rural Economy generally, as may enable *every farmer*, in some particulars at least, to effect important improvements. The construction of farm buildings generally, the breeding and management of domestic animals, the manufacture of manure, the cultivation of crops ; the planting, training and culture of fruit trees ; laying out door-yard grounds and ornamental planting, kitchen gardening, the construction and use of improved farm implements and machines ; and, in short, every department of practical knowledge immediately connected with modern agriculture, will be presented in a condensed form, and in a practical manner, to the reader. It will be continued annually, with such improvements as experience shall suggest in each successive year, so that it may constitute an authentic Annual Register of the true progress of Rural Improvement."

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Carrots for Milk and Butter.—It is only a few years since we had various recommendations for coloring butter to a deep golden yellow, by grinding up and mixing in the pulp of the orange carrot, but the best way that we found for giving the carrot color, was to pass these roots first through the cow. We have, with nothing more than an average decent cow, made seven pounds of butter per week, much resembling the best grass butter, in the depth of winter, besides using a small portion of the milk daily on the table. This was accomplished by the use of about a peck and a half of the white variety per day. We hope such of our readers as can, will experiment in the use of this root, the present winter, and let us know the result.

Osage Orange Insect.

The fitness of the Osage Orange in every respect for hedges, and its superiority to all other plants for this purpose, has become more and more established, as experiments have been more widely made. The fact that the Illinois Central Railroad Company has contracted for a hundred miles of this kind of hedge for enclosing their road, shows the high estimation in which it is held in that region of the country. Its rapid growth, formidable armature of thorns, its natural *hedginess*, and more especially its reputed freedom from the attacks of insects, have all combined to give it a high and increasing reputation. It was therefore, with some alarm, that we learned a few days since on a visit to the nursery of Dell & Collins of Waterloo, N. Y., that their young hedges had been attacked at the roots by a *white ant*, perforating the wood; and resulting, as they thought, in the death of the plant. The plants were set out last spring, in a very light and loose sandy soil, and about midsummer were observed to be dying. On examination, the ants were discovered perforating the roots, and were believed to be the cause of the disaster. No change was observed in their appearance, and only a decrease in numbers from this time till late in autumn at the time of our visit. We procured from H. Collins a vial containing a portion of the soil surrounding the roots of the plants, and filled with the insects in question, and immediately forwarded it to Prof. T. W. Harris, of Cambridge, Mass., who has furnished us with the following communication in relation to it. The importance of the subject, and the necessity of knowing this insect, its habits, and the best mode for its destruction, should it appear in other places, induce us to publish Dr. Harris's letter entire; and we hope the opinion may prove to be true, that the insect is only the *result* and not the *cause* of the death of the plant.

The bottle containing insects and samples of the roots of the Osage Orange, which you sent to me, came to hand yesterday. The insects, about fifty in number, with the exception of one individual, are *white ants*. The single specimen, referred to, is the larva or grub of one of those beetles that live in decayed wood. It was alive, and quite active when received, and measured a little more than one fifth of an inch in length. The *white ants* were apparently torpid, if not really dead. They vary slightly in size; but the largest are not more than three twentieths of an inch long. Two of these ants differ remarkably from the rest in the shape, proportion, and color of their head and jaws. The prevailing color of their bodies, like that of the other specimens, is yellowish white but the fore part of the head is brownish, and the jaws are nearly black. The head of these individuals is nearly one third the whole length of the body, and is of an oblong square shape; and the jaws are long, sharp-pointed, and cross at the ends like the blades of scissors. The other white ants have a round head of moderate size, and small curved jaws, which are only slightly brownish at the tips. The big-headed individuals are what are called the *soldiers*, and the others are the *laborers*. I judge all of them, though fully grown, to be young insects, or such as have not yet taken any active part in the business of the community. Among all the white ants that I have seen, including the celebrated hill-ants of Africa, the *adult laborers* and *soldiers* have brown heads and blackish jaws.

Your specimens resemble such as I have often seen in decayed trees, and in the bottoms of fence posts, and even in the sills of old houses; but, without having before me the winged males and females, I cannot determine whether they are of the same species. A gentleman in Dorchester lately sent me some adult white ants which had spoiled the bean-poles in his garden, had destroyed his gate-posts, and were attacking the wood-work of his house.

No instance has ever fallen under my observation of living plants or the living parts of plants being attacked by white ants. The Rev. Dr. Thomas S. Savage, who passed some years at Cape Palmas, in West Africa, and has carefully studied the habits of the white ants of that region, says that "shrubs or small trees are frequently seen growing up through the hills" of the white ant, called *Termés bellicosus;* that "such trees are never seen dead, consequently are not eaten by the insect." In Mr. Henry Smeathman's account of the white ants of Africa, the following remarks are found. "If a stake in a hedge has not taken root and vegetated, it becomes their business to destroy it. If it has a good sound bark round it, they will enter at the bottom, and eat all but the bark, which will remain, and exhibit the appearance of a solid stick. Sometimes, though seldom, the animals are known to attack living trees; but not, I apprehend, before symptoms of mortification have appeared at the roots; since it is evident that these insects are intended in the order of nature to hasten the dissolution of such trees and vegetables as have arrived at their greatest maturity and perfection, and which would, by a tedious decay, serve only to encumber the face of the earth."

From such observations as these, I conclude that the roots of the Osage Orange hedges to which you refer, were probably *dead* or *dying* before they were attacked by the white ants. In the samples of the roots, sent to me, the insects have preyed upon the wood, leaving the bark mostly entire. I beg leave to suggest that if the plants had been in a vigorous or healthy condition, had been properly set out, and had been kept well mulched, they would have survived the extreme drouth of the last summer, and have resisted the attacks of the white ants.

I have somewhere seen it stated that salt-water or brine was a preservation against attacks of white ants. It may be well to try the effect of it on some of your injured Osage Orange plants.

Yours respectfully,
Thaddeus William Harris.

Lying rides upon debt's back; it is hard to find an empty bag stand upright.

Indian Corn—Increased Demand and Supply.

No country can ever rival the United States in the production of Indian corn. And large as is the crop of the whole States taken together, being, according to the census of 1840, as much as 377,531,875 bushels, and according to census of 1850, 592,071,104 bushels, there is good reason to think that, were there a demand and a market for it, thirty, fifty or even a hundred fold this quaniity could easily be raised. The demand, even though it should come from all parts of Europe, and be greatly increased at home, could readily be supplied. And as it costs a great deal less to produce a bushel of corn than a bushel of wheat, (estimates of the cost of production of both have been given in this paper,) we might supply the demands on such terms as to leave a handsomely remunerating profit in the hands of the producers.

We are persuaded that a greatly increased demand *might* be created if only one or two obstacles were taken out of the way. The prejudices against the use of maize as an article of food, which exist in most of the countries of Western Europe, and more especially in England, are not without reasonable foundation. Were it not for these prejudices and the causes which have originated them, the laboring population of these countries would gladly avail themselves of a kind of food cheaper and more nutritious than wheat, and of a kind of grain which holds out greater prospects of a *regular* supply than any other.

The peculiar flavor and taste of corn meal, especially of the yellow variety, is one cause of the European dislike to this cereal or prejudice against it. But this would soon be overcome, as it has been among the descendants of Europeans in this country, who now generally prefer the yellow corn, the meal of which has the strongest flavor.

The *great* cause of the dislike and prejudice which limit the European demand for this article is this:—corn-meal in a *good condition*, is hardly ever to be found. It is very generally musty, showing that injury has been sustained either in the crib, or in the granary, or vessel during transport. A considerable many samples which were at one time examined on Corn Exchange, would have been declared unfit for human food in America. This is the great reason why corn meal has not been more extensively introduced as an article of food in England and other countries of Europe, and why the demand for this staple article of American produce has not been much greater than it is.

One principal reason why corn and corn-meal suffer injury by heating or getting musty, is the fact that they naturally—that is without special pains in drying—contain a large proportion of water Ripe corn, it is said, contains about 37 per cent of water, while that in a condition fit for grinding should contain only from 12 to 14, so that 25 per cent. should be previously evaporated. This, it is very well known, is not done successfully in the crib, or before being taken to market: on the contrary, corn is often put up with so much moisture in the cobs and in the soft ears, that even the ripest ears can scarcely escape some injury. Indeed there is great temptation to prevent corn from getting much dried, for then there would be a shrinkage both in size and weight, and thus a loss, whether sold by measure or by weight. If corn is ground in this imperfectly dry condition, it is almost sure to heat and be injured on account of the moisture which it contains. Inasmuch then as we might sell to Europe much more of this article than we do, if this hindrance were taken out of the way, it must be evident that it is short-sighted policy indeed to send either corn or meal in a condition in which it is sure to become injured. Some who have been at pains to secure this article fresh and free from injury, have been so pleased with it in the form of cake, pudding and otherwise, as to express themselves as thoroughly persuaded that it would soon become a *favorite* article of diet, if it were only imported in an uninjured condition. Were it not for the slovenliness shown in the care of this crop, and the short-sighted policy to which we have referred, our foreign market for corn might have been much greater than what it now is. To have a greater demand and a more certain market, we must of course pursue an opposite course. A good article will be sure to find a market; whereas musty meal will always find a dull sale.

The course which would so obviously benefit ourselves, by creating a greater market for our produce, would also be of great benefit to others. Especially would we thus confer a benefit on the laboring population of England, by diminishing scarcity, high prices, and their consequent privations and sufferings.

In closing this article we would state that a Mr. Bulkley of Kalamazoo, Mich., has patented a kiln and process for kiln-drying corn-meal. Whether any meal or any corn so dried has ever been sent to Europe, we are not informed. We should be glad to hear form Mr. B. himself.

Wheat Prospects as to Prices.

Notwithstanding the abundant harvest in England and the north of Europe generally, the English do not expect to obtain their wheat and bread at low prices, nor to get along without the necessity of importing from other countries. Had their own harvest proved less bountiful, nothing could have saved them from famine prices. Old stocks were so completely worked up in all parts of the world, that it would have been impossible to obtain large supplies from any quarter, except at exorbitant rates. The war with Russia cuts them off from their usual supplies from the ports of the Black Sea and Azoff; and Holland and Belgium will more probably require supplies for themselves, than have any wheat or other grain to spare.

A recognition of these facts has led to a rise in prices at our latest advices. This advance is ascribed by the best English authorities, not to the effect of speculation and large purchases, but solely to the supplies falling short of the quantity needed for actual demands. The trade is consequently supposed to be in a sound position, and no prospect of any sudden reaction is entertained. Notwithstanding an anxious desire on the part of the farmers to profit by the high rates current, they have not been able to bring forward sufficient to check the rise.

In such a state of the English wheat market, the following remarks from the leader in the Mark-Lane Express of Oct. 30, may be interesting to some readers:

"That we shall require Foreign supplies, notwithstanding the acknowledged abundance of the home-produce, cannot admit of doubt. Last year the imports of Wheat into the United Kingdom, amounted to 4,949,314 qrs., and during the six preceding years we have required 3,000,000 qrs. annually. At no previous period have old stocks been so completely exhausted as they now are; and making full allowance for the superiority of this year's produce, it may still be questioned whether we shall be able to manage with a smaller supply from abroad than we have been in the habit of consuming annually for seven years past. It becomes, therefore, a matter for serious consideration where this quantity is to be obtained. Russia has, till now, furnished a very large proportion of the entire imports into Great Britain; this resource is entirely swept away. America has been the next largest importing country. Can we depend upon our usual supply from thence? and what prices will it need to induce the Americans to part with what they themselves appear this season to want for their own use? We shall not attempt to answer these questions, but they must suggest themselves to all who reflect on the future.

Most fortunate is it that we have been blessed with a bountiful harvest; but, even with this advantage, we cannot reckon on low prices of food; indeed we consider the advance which has taken place as highly salutary, in as much as it will lead to economy in consumption.

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Does Manuring Usually Pay?

That it does, when employed with tolerable good judgment, can be abundantly proved and established. Many, however, have great doubts and uncertainties about the matter; and hence never purchase a dollar's worth of any marketable manure, nor save nor manufacture what they might, without *much* trouble, at home. The aggregate produce of the country would be much greater, and also the prosperity of the farming community, could these doubts and uncertainties be removed. For these and other reasons it seems desirable to call the attention of the public to such facts as go to establish the important truth that *judicious* manuring will always pay,—always well remunerate the farmer for all the outlay, time or trouble expended in this way on his land.

In the columns of the *Times*, (London,) we find a statement of the results of some experiments, made by a distinguished agriculturist, on the application of manure to wheat. In the center of a 50 acre field, one acre was left without manure; all the rest of the field receiving 2 cwt. of Peruvian guano per acre in autumn, at the time the seed was sown. The produce of the acre undressed was tested against that of the adjoining one, which had received Peruvian guano, and the result was that one acre with guano yielded 32 bushels of 63 lbs. per bushel, while the acre without manure yielded 25½ bushels of 60 lbs. to the bushel. The difference in money value amounted to £2 : 12 : 7 or about $13, while the cost of 2 cwt. of guano in 1853 when applied was £1 or about $5. There was, in this case then, a profit of $8 from every acre to which the guano was applied, or $400 if the whole fifty acres had been manured. There was also a superior *quality* of wheat produced on the manured portion as shown by the weight per bushel, and this additional advantage also that the wheat on the manured portion was a week earlier in ripening than the other.

A second experiment is related which was made to test the value of nitrate of soda and common salt as a top dressing to wheat in spring. A whole field, save one acre in the center, was top dressed in April with 1 cwt. of nitrate of soda and 1 cwt. of salt per acre, given in two applications at the interval of two weeks. The result in this case was also extremely profitable One acre with nitrate of soda and salt yielded 42 bushels, worth £13 : 13; while the acre without manure yielded only 30 bushels, worth £9 : 15. The difference between the two acres tested was greater in this than in the former case. The difference in money value was nearly $15, while the 1 cwt. of nitrate of soda and the 1 cwt. of salt together cost only £1 or $5. The profit per acre in this case was, therefore, very nearly $10.

These experiments are not singular or beyond ordinary in their results. They only corroborate hundreds of others made both in this country and in Great Britain. But they are well entitled to attention as they may serve to fix upon many minds the impression that farmers possess the power of greatly increasing both the produce and the profit of their crops. Independently, indeed, of the consideration of profit, the results of the above experiments are interesting. Here are two substances the application of which, in certain known quantities, gives an increase, which may be stated, on an average, of nearly one fourth to the natural produce. Such an addition all over a country is equal to the food of one fourth of the population of that country. In England, it would make all the difference between plenty and scarcity, cheap bread and dear bread, a steady prosperity and a constant drain of gold for the wheat and bread-stuff of foreign countries.

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Inquiries.

MESSRS. EDITORS—I have a piece of meadow that has lain in grass about twelve years. The soil is a sandy loam—rather moist. I think of putting on about twenty loads of yard manure (half cord to the load) to the acre, and plow it in about six or seven inches deep, and plant with corn.

And now will it pay the expense of a coat of guano on the furrows harrowed in well, or can I apply it some other way to better advantage. How much is it profitable to put on, if I use any?

Will you or some of your numerous readers more familiar with the benefits and the expense of guano than I am, answer the above through "The Cultivator," and oblige an old FARMER. *Kent, Conn.*

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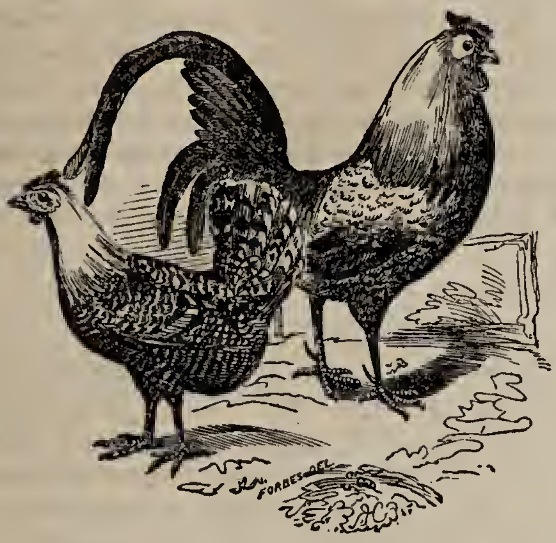
The large vine at Hampton Court has upwards of 1600 bunches of grapes this season, and appears to be in excellent health.—*Gardener's Chronicle.*



The Poultry Yard.

THE POULTRY SHOW AT UTICA

A friend who was present at this exhibition, furnishes us the following notice:

The N. Y. State Poultry Show came off at Utica last week as advertised, at Mechanic's Hall, a fine room for the purpose. The show, taken as a whole, has probably not been surpassed by any previous show in this country.

The variety on exhibition was great—almost endless, and many of the specimens beautiful. Some oi the largest contributors were D. S. Heffron of Utica, E. E. Platt of Albany, and H. Johnson of Patterson, N. J.

Geo. Anderson of Albany, Geo. Snyder of Rhinebeck, Mr. Hart of Clinton and Mr. Wright of Utica, each exhibited several coops.

John Giles, Esq. of Woodstock, Conn., exhibited five coops of most rare and beautiful Aquatic fowls; among them was the Cereopsis Goose, a great curiosity, and perhaps the only specimen in this country—a pair of Egyptian Geese, very peculiar and attractive, and also Rouen, Black Java and Aylesbury Ducks. Mr. Giles has recently returned from Europe with those and many other valuable and rare specimens of Aquatic and Gallinaceous fowls.

The large Asiatic fowls were predominant in the show, and certainly very creditably acquitted themselves, fully sustaining the reputation they have heretofore enjoyed. They would have done even more, had not the old birds, especially the males, appeared somewhat to disadvantage, not being in full plumage. Their name was legion, and their nomenclature, generally sensible, being Grey, Black, Buff, White or Dominique Shanghai, as the case might be. One coop, however, of fine Grey Shanghais, entered by T. B. Miner of Clinton, was prominently labelled "Brahma Pootra."

The Black Spanish were fine, though the committee found but one really pure bred bird of this variety, on which to bestow a premium. This was a cock said to have been obtained from John Giles, Esq.

White and Speckled Dorkings were fine. Gold and Silver Spangled, and Penciled Hamburghs, were prominent in the house. All the varieties of Poland fowls were on hand, and some of them, especially the Silver Spangled Poland, were very superior. In short all the varieties called for by the Premium list, and many others, were out, and in such character and plumage as to command the admiration of all who saw them: but, unfortunately for the finances and reputation of the society, the citizens of Utica manifested but very little interest in the show. The attendance was very small, and the receipts correspondingly so.

The committee of gentlemen to whom was committed the arduous task of deciding the comparative merits of all the different varieties of Gallinaceous and Aquatic fowls, had indeed, a laborious task. They were Francis Rotch, John Giles and Daniel Barker.
A SPECTATOR.

We have received the Report of the awarding committee, from which it appears that of the fifty-six prizes awarded, 15 first, one 2d and two 3d prises, were given to D. S. Heffron, Utica—six 1st and seven 2d, to E. E. Platt, Albany—one 1st and four 2d, to Thomas Wright, Utica—one 1st, one 2d and one 3d, to G. W. Cummings, Rochester—two 1st to A. A. Hudson, Syracuse—one 2d, to Geo. Anderson, Albany—one 1st, to J. W. Herring, Marcellus—one 2d, to T. B. Miner, Clinton—one 1st and one 2d, to R. H. Van Rensselaer, Morris, for Speckled Dorkings—one 2d, to Israel French New-York Mills—one 1st, to J. F. Kettle, Utica—one 1st, to John Erwin, Utica—one 1st, to R. H. Avery, Wampsville—two 1st, to D. Burgess, Winfield—one 1st and one 2d, to O. S. Cumings, Trenton Falls—one 2d, to Oliver Wilson, Whitesboro—and to F. W. Collins, East Bloomfield, 1st, for Pigeons, and to Thomas Gould, Aurora, the 1st for Rabbits.

Appended to the Report is the following letter, which explains itself. It is a very common thing to hear complaints—sometimes loud—of injustice done them by awarding committees; but we do not remember before to have seen an instance where an exhibitor protested that he had received more than was his due.

UTICA, Dec. 1, 1854.

SIR—In connection with the report of the Judges of the late State Poultry Show, allow me to make a statement. As appears from the report, my birds have been unusually successful in the contest for premiums, sixteen out of twenty distinct varieties exhibited, being so honored. This was more than I expected, and more than I honestly think they deserved. And I am strongly of the opinion that, had they had more time, they would have come to a different conclusion in two or three cases. First, I think Geo. Anderson, of Albany, should have received the second premium on Buff Shanghae instead of myself. I suspected that the Clerk of the Committee had made a mistake in the entry, as my birds stood immediately over Anderson's, but he avers that he did not. In some respects, I think, Thomas Wright's Sumatra Games were better than mine, and should have been perfectly satisfied had they awarded my birds the second premium, instead of the first.

My Silver Spangled Hamburg fowls were awarded the first premium; and it is my impression that had they not stood in a dark place, where their defects could not well be discerned, they would have received no premium. So, had I been judge, my Silver Pencilled Hamburghs or Creoles would have received no premium; for, though their combs, earlobes, and forms were correct, there was some defect in markings. L. M. Taylor had the best marked Creoles, but the comb of the cock was defective. I therefore, refuse all the premiums awarded on the above mentioned birds. D. S Heffron, *Ex Pres. of the New-York State Poultry Society.*

After the reading of the Report of the Judges, the Society proceeded to the election of officers for the ensuing year, when the following Board was unanimously elected.

President—FRANCIS ROTCH, of Morris.

Vice-Presidents—C. W. Goddard, Albany; F. W. Collins, East Bloomfield; A. A. Hudson, Syracuse.

Cor. Sec'y—R. C. McCormick, Jr., Woodhaven, L. I.

Rec. Sec'y & Treas.—C. M. Scholefield, Yorkville.

Board of Managers—D. S. Heffron, Utica; Sam'l T. Taberg, Dutchess; P. F. Peck, Yonkers; R. C. McCormick, New-York; M. M Kimmey,, Cedar Hill; George St. George, York Mills; Thos Gould, Aurora; G. Pitts, Honeoye; R. H. Van Rensselaer, Morris; Mr. Haight, Rochester; G. Mallons, Macedon; S. V. C. Van Rensselaer, Claverack; L. M Taylor, Utica; N. S. Smith, Buffalo; G. W Herring, Marcellus; Geo. Anderson, Albany; E. Giles, Sauquoit; M. Vassar, Po'keepsie; Elihu Burritt, Burdett; Leroy Mowry, Greenwich.

It was also recommended that the Board of Managers appoint the next Exhibition of the Society at Albany, at the same time that the Winter Show of the State Agricultural Society is held, in February, 1856.

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NEW METHOD OF DECAPITATING POULTRY.

Take a turkey for instance, and wrap him up whole length in a piece of coarse cloth, leaving the head out, and lash him fore and aft with a cord sufficiently strong. Then decapitate with a sharp hatchet on a firm block. By these means the executioner is spared from witnessing those fearful gyrations so alarming to the beholder, when a turkey dies, and he also follows the advice of Isaac Walton, the affectionate angler, on baiting the hook, "treats them as though he loved them." Our thanksgiving turkey relished better than usual, in consequence of this discovery. S. B. S.

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GAPES IN CHICKENS.

I have never known a case of it among my poultry, and I think your cosrespondent's remarks on the subject, in the November number, are correct. S. B. S.

Cure for Gapes.—We have a Shanghae rooster about 15 months old. About a month ago, he got the gapes—the first grown fowl I ever knew to have that disease. He continued to get worse, until we feared he would die. We then applied spirits of turpentine, as recommended in a late no. of "The Cultivator," and it cured him entirely. C. Dingman. *Minden.*

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DISEASES IN POULTRY.

Various remedies have been offered for different diseases in poultry. I have one remedy in all cases, for all ages and all kinds. Whenever any one of them seems out of sorts, I administer water with a teaspoon, as hot as I think they can bear it, at two or three different times; also bathe the feet in it, and keep them without food and away from the cold, till they begin to brighten up, which they generally do in the course of a day. Some die. I treated a fine young turkey in this way which was nearly killed by an accidental blow on the top of the head. Fowls affected with indigestion,(indicated most readily by frequent attempts to swallow) should be attended to as soon as practicable.

I am not advocating hydropathy, but I think many human diseases could be cured in the same manner. S. B. S.

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The Housewife.

APPLE CUSTARD PIES.

To one pound of apple, add one pound of sugar and one-fourth pound of butter. Simmer them together, and let them cool. Then add ten eggs, well-beaten, and one quart of sweet cream. Nutmeg and spice to your taste. Mix well and bake with one crust. A Young Housekeeper.

ELASTIC VARNISH FOR LEATHER.

We find the following recipe for such a varnish, going the rounds of the papers. So little dependence can be safely put in these flying prescriptions, recipes, &c, that it would confer a favor on many of your readers to know on *good authority* something in relation to this preparation. It is as follows:—"Take two parts by weight of resin and one of India rubber, and heat them in an earthenware vessel till they are fused together; stir together after this till they are quite cold, or add a little boiled linseed oil when nearly cold."

Now as this, or something like this, would be very likely to be an excellent elastic and water-proof application, to leather, it would be a favor and benefit conferred on the public if any one acquainted with this or a similar application,would say what they *know* certainly of its merits, best modes of application, whether sticky when put on harness, &c. &c. O.

HOW TO SALT PORK SO AS TO KEEP.

Every experienced farmer is familiar with the following, but it may be useful to beginners:

Cut your pork up, the strips clear of ribs six inches wide; let it lay over night. Next day salt as follows: sprinkle the bottom of the barrel well with coarse salt —Turk's island or some other good kind; put in a layer of meat set on edge, packed as close as possible;—then another layer of salt, and so on till your meat is all in the barrel. Then I take common eastern, or lake salt as it is called, and make a brine as strong as it can be made; let it stand two or three days and then pour off the clean brine, and then put it on the meat, and it is safe. Keep it under brine by placing a weight on it.

One bushel of coarse salt is enough for the side meat f six good hogs.

After trying almost all methods to keep smoked hams without success, I have the last four years kept them with success by the following plan.

Put a layer of fine dry charcoal, then a layer of hams, then charcoal, and so on. No bugs or skippers or mould ever touch them.

Keep in a dry and cool place, and they will keep perfectly sweet, if in good order when put down.—*Ex.*

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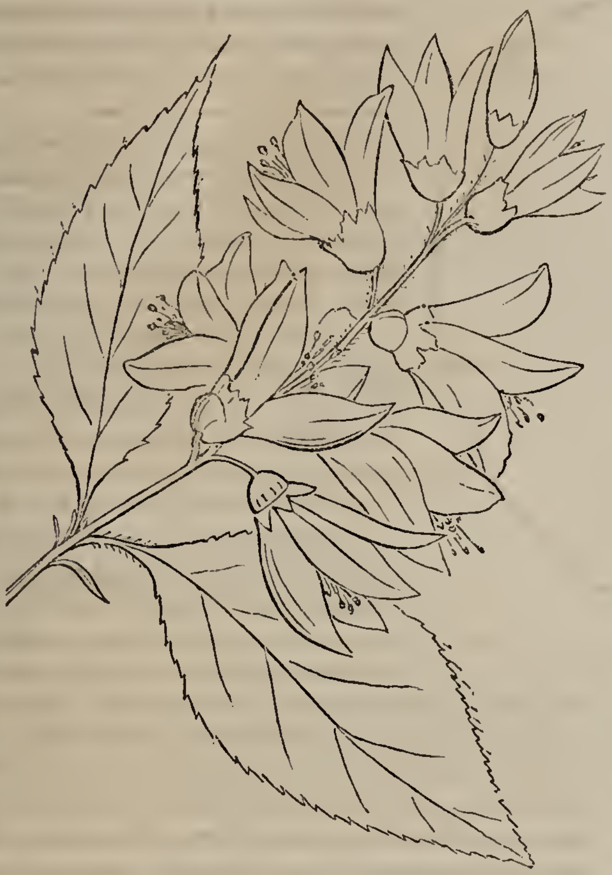
Slippery walks.—Dash water on them, and then throw on an inch or two of snow, and they will cease to be slippery.



The Deutzia Scabra.

This is a beautiful hardy flowering shrub, from Japan. Flowers, white, in May and June—is a free bloomer, and worthy a place in all shrubberies.

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DOUBLE FLOWERS.

The London Horticultural Cabinet of 1847, as quoted in Hovey's Magazine, says that merely planting the fresh seeds of double flowers does not at all insure double flowers again, nor even increase the liability over any other seed similarly used. But that, to obtain them, the seed must be kept several years, or to the extreme verge of vitality, when their vegetating power or vital force has become nearly expended, and that this will result in those imperfect or unnatural productions known as double flowers. In the words of the article alluded to,—

> If, after having gathered the seeds of Malcomia annua, or Ten-weeks' stock, we sow them immediately afterwards, the greatest number of the seedlings will produce single flowers, whilst, on the contrary, if we preserve these same seeds for 3 or 4 years, and then sow them, we shall find double flowers upon nearly all the plants. To explain this phenomenon, we say, that in keeping a seed for several years, we fatigue it and weaken it. Then, when we place it in a suitable soil, we change its natural state, and from a wild plant make it a cultivated one. What proves our position is, that plants, in a wild state, shedding their seeds naturally, and sowing them as soon as they fall to the ground, yet in a long succession of time scarcely ever produce plants with double flowers. We think then, after what we have said, that whenever a gardener wishes to obtain double flowers, he ought not to sow the seeds till after having kept them for as long a time as possible. This practice ought to be observed with all plants that we wish should produce double flowers, for all varieties of the Brompton stocks, Ten-week stocks, and others of the same kind, there is no doubt that to flower them well they should be sown in autumn in well-worked soil, taken up when the cold weather comes and kept under a frame during the winter. In the spring they may be planted out again, when they will flower magnificently, and yield an abundant harvest of seeds. If you have not a frame at your disposal, you may obtain the same result, by sowing the seeds at the end of February, under a south wall, for example. The principles that we have admitted above are just as applicable to melons and all plants of that family. We admit, like many other observers, that melon plants obtained from seeds the preceding year ought to produce, and do produce, really vigorous shoots, with much foliage; but very few fruitful flowers appear on such plants; whilst, on the other hand, when we sow old seeds, we obtain an abundance of very large fruit. In fact, in all varieties of the melon the seeds should always be kept from three to eight years, before being sown, if we would obtain fine fruit, and plenty of it.

Can any of our skillful and observant gardeners vouch for the truth of this statement? It would be an easy thing to give it a fair trial. If true with regard to melons and cucumbers, it ought to be known more widely, and it may be easily proved by trying the experiment *with a few repetitions* with old and new seed, planted in equal quantities and under similar circumstances in all respects.

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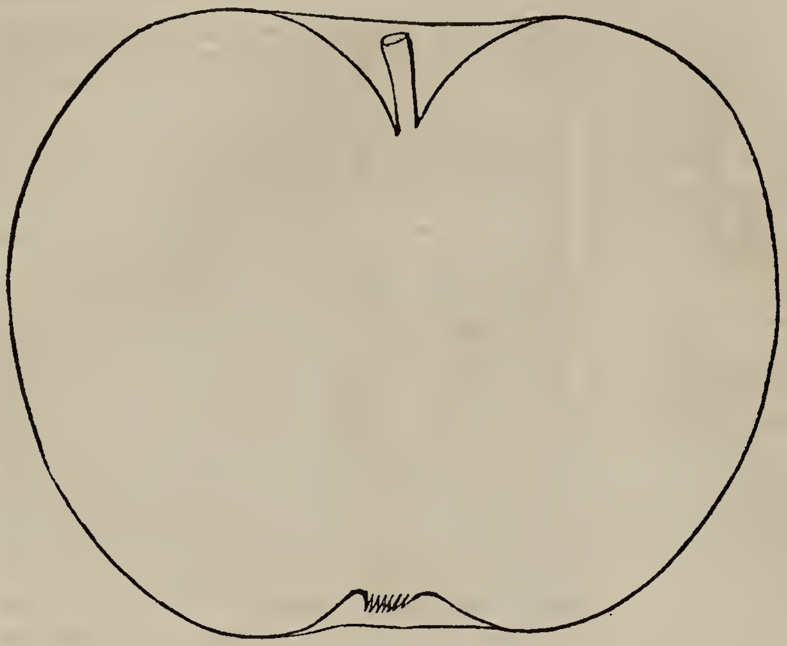
Fair and Productive Apples.

The McLellan.—Every day, almost, brings up some new variety of apple, highly recommended for its good qualities. On examination, we usually find these new sorts overrated, and that at best, they are a little, perhaps a very little below the point entitling them to cultivation. They are *almost* worthy of attention. Up to this "*point of decided value*," although there are very many candidates, few ever reach; like the many thousand men now living who are looking towards the Presidency, but very few get there—(although we must admit that in the *latter* instance, unlike the former, the best rarely get the highest.)

The character of our seasons and the success of the apple crop, seem to point towards a still further reduction in the list of those worthy of general adoption. A large portion of such as in flavor would be entitled to the term "very good," if not "best," are becoming either unproductive, or very scabby. This is enough to spoil the reputation of any fruit, no matter what may be its excellence in quality. Whenever, therefore, a new variety is brought forward, the first question, after inquiring its quality, should be, "Is it fair and productive through all seasons?"

Among those varieties which answer this question in the affirmative, are the Sops of Wine, Duchess of Oldenburgh, Porter, Lowell, Baldwin, Rhode Island Greening, Talman Sweeting, Roxbury Russet, Peck's Pleasant, Fall Orange, and a few others, some of which although not of the highest quality, yet are so fair and productive as to stand high on the list for real value. The McLellan, so far as we can learn, will probably come in the same list. This variety was first described in the Horticulturist in 1847, about which time we received specimens from Connecticut, its native locali-



The McLellan Apple.

ty, through the hands of Charles Downing, and had an opportunity of testing its quality. H. S. Ramsdell, of Thompson, Ct., who first brought it into notice, says (according to the Horticulturist,) that it is as good a bearer as the Rhode Island Greening and Roxbury Russet, and that it gives crops of fine fruit when the usual apple crop is exceedingly small. He also states that it has borne good crops when these two celebrated sorts have failed. The tree is a moderate grower.

The following description was prepared from the specimens before us; Rather large, nearly round, faintly inclining to oblong; skin smooth, very handsomely colored with short broken stripes, and finely mottled, with a bright pure red, on a yellow ground, stalk one half to three fourths of an inch long, in a moderately deep cavity; calyx in a moderate wavy basin. Sometimes both cavity and basin are rather deep. Flesh nearly white, very tender, fine grained, with a very agreeable, slightly sub-acid, but not very rich flavor. Season, first half of winter.

◆

Accuracy and Guess-Work in Draining.

In order that the fine and delicate net-work of fibres which constitute the smaller roots of every plant, may extend freely through the soil, and be fed liberally with the nourishment they need, the soil must be mellow and porous, and moderately moist. If the ground is hard, they cannot easily penetrate it; if too dry, they cannot get nourishment from it; and if soaked with water, they can no more grow than a hill of corn planted in the bottom of a pond.

Now, it may seem paradoxical to assert that the best way to prevent land from becoming too dry, *is to drain it;* yet such is the fact. A soil that is deluged in spring, has the particles which the frost of winter has crumbled, packed together again like a hod of mortar. It thus loses its sponge-like character, and cannot hold the water which fills it. It dries and hardens like a brick as the hot weather approaches. It can neither retain a useful amount of moisture, nor allow the fine rootlets to penetrate its hardened mass. It has become, in short, every way unfitted for the sustenance and growth of crops.

What a striking contrast there is in the two ways by which land becomes dry, whether by the slow process of spontaneous drying, or by the rapid artificial mode through tubular tiles. In the former case, the thousands of barrels of *surplus* water which fill a single acre of soil, must ooze drop by drop across the whole breadth of the field before it can escape at the lower side, or be gradually dried up by the almost imperceptible process of spontaneous evaporation, during the weeks of warm weather that follow the rains of spring. But on a well drained field, the escaping water sweeps rapidly from one side of the field to the other, through the smooth tubes of evenly laid tile, and the whole process is accomplished within a few hours.

These advantages are fully known to some of our best farmers, and is demonstrated in their practice, and we need not dwell longer upon them. But there is one part of the process of draining, that has been performed very much at hap-hazard, even by the most skillful managers. We mean here the total want of calculation, as to the *amount* of water to be conveyed off through the proposed ditch, and consequently an entire absence of any accurate knowledge as to the *size* of the tubular tile required. It is our purpose at the present moment to point out how this calculation can be easily performed, so that every operator may determine with much certainty beforehand, whether his pipes will be likely to be nearly empty on the one hand, or be insufficient to carry off all the water, on the other.

The first question is, how shall we know how much water a given drain is expected to carry. This may be determined if we know the circumstances. If, for example, no more water occupies the soil than that which falls upon it, we may assume that not over two inches in depth will at any time constitute the surplus. Few rains or snow-meltings ever amount to this depth; and as a part is needed on the land, this will be a safe estimate for extreme cases. Now, two inches of rain would be about 700 hogsheads per acre, which ought to be discharged at furthest in 48 hours of time. On a square ten-acre lot, with drains 33 feet apart, each drain would therefore be required to carry off half of this amount of water—that is, from a strip of land two rods wide and forty rods long. This would be about 175 hogsheads in 24 hours. The size of the pipe required must depend greatly on the *slope* of the field; and to determine this under all the varying circumstances the following general rule will be found of much value:—

Let L, represent the tube of the drain, in the annexed figure, (Fig. 1.) The letter H may represent,

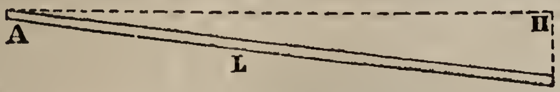


Fig. 1.

algebraically, the amount of descent in the drain, and D the diameter of the tube. It is required to find the quantity represented by Q which will be discharged in one second. The length and height being given in feet, and the diameter of the pipe in inches, the formula, expressing the rule, when the quantity is required in gallons, is simply as follows :

To make this rule intelligible to all, take the following example :

$$Q = 0.608 \surd (D^{5} \frac{H}{L})$$

Let $L =$ 80 rods or 1320 feet.
" $H =$ 10 feet.
" $D =$ 2 inches.
" $Q =$ gallons.

$$\text{Then } Q = 0.608 \surd 32 \times \frac{10}{1320}) = 0.29.$$

This may be thus expressed in words :—Divide the height (10) by the length (1320) which gives $\frac{1}{132}$; multiply this quotient by the fifth power of the diameter (fifth power of $2 = 32$) ; extract the square root of the product, which being multiplied by 0.608, will give 0.29, the number of gallons discharged in one second of time. This would be 17 gallons per minute, 1020 gallons per hour, or 24,480 gallons or 390 hogsheads in 24 hours, being twice as fast as would be required to carry off the 175 hogsheads already estimated in this article. In other words, land sloping 10 feet in 40 rods, with two-inch tubular tile, will afford drainage from the heaviest floodings, in twenty-four hours.

Where the slope is greater than this, as is often the case, the smallest tile now manufactured may be safely employed.

There are circumstances, however, affording exceptions to this estimate. When the water from rains pours down from the sides of higher land upon the surface of the part subjected to drainage, an additional allowance must be made, according to this increased amount. Springs will also modify the estimate.

Where main drains are employed to receive the discharge of several ordinary drains, the preceding rule will enable any one who has a knowledge of arithmetic, to determine with precision the size of tile needed, it being only necessary to ascertain previously the extent of surface, and the amount of descent.

It is obvious that to apply this rule with any degree of accuracy, a *level* must be used to find the descent Where this is considerable, the simple contrivance shown by Fig. 2 will answer every practical purpose, being merely a common square, placed in a slit in the top of a staff, brought to a level by means of the plumb line, and fastened by a screw. A cup of water attached to the rod, for the plumb to dip in, will prevent its being blown about by the wind, at the same time that it will move freely. Where greater accuracy is required, as in long and nearly level ditches, the "water level" may be used. It may be made of a lead tube about three feet long, bent up an inch or two at each end, and stiffened by fastening to a wooden bar, A, B (*Fig.* 3). Into each end is cemented, with sealing-wax, a small and thin phial with the bottom broken off, so that when the tube is filled with water it may rise freely into the phials. If the tube be now filled with water colored with cochineal or any dye-stuff, and then placed upon the tripod, C, by looking across the two surfaces of liquid in the phials, an accurate level may be obtained. When not in use, a a cork is placed into each phial. "Sights" of equal height, fastened to pieces of cork floating on the water, as shown in *Fig.* 4, give a more distinct line for the eye. The sights are formed of fine threads or hairs stretched across the square openings. To ascertain whether these threads are both of equal heights above the water, let a mark be made where they intersect some distant object; then reverse the instrument, or turn it end for end, and observe whether the threads cross the same mark. If they do, the instrument is correct; but if they do not, then one of the sights must be raised or lowered until it becomes so.

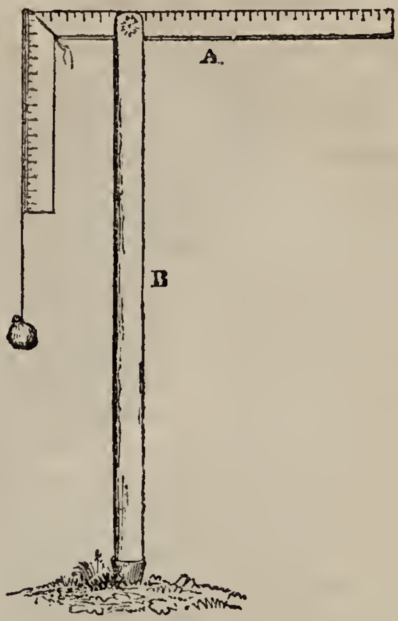


Fig. 2.

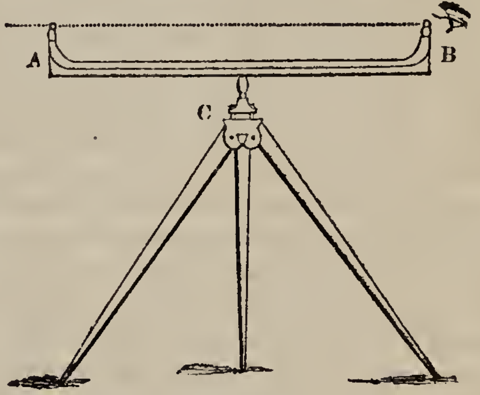


Fig 3.

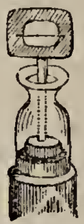


Fig. 4.

* * *

Sugar Consumed.—It is said there are 750,000 000 pounds of cane sugar, and 27,000,000 of maple sugar consumed every year by the people of the Union —besides molasses and honey.

Foot-Rot in Sheep.

The following article from the Mark Lane Express, contains a full description of this formidable and infectious malady, and may enable some of our younger readers to detect it and to apply promptly the proper remedy.

We copy the mode of treatment here recommended for the purpose of pointing out a much better, simpler, and cheaper mode, introduced some years since with great success, by HUMPHREY HOWLAND, Esq. of Aurora, Cayuga Co. N. Y. (who has kept an average of 2000 sheep for the last 30 years,) and first noticed in the Cultivator in 1846. We may here remark, that this remedy, had it been earlier known, would have saved him some thousands of dollars; and others who have been since induced to try it from that recommendation, assure us that it is incomparably superior to any other remedy they have tried. The second season of its application in the flock of H Howland, it diminished the disease from thirty per cent to one per cent, or in other words, only one sheep was affected with it where thirty had been before. Subsequently it wholly eradicated the disease; while other flocks in the same neighborhood, untreated, remained as badly affected as ever.

The remedy consists simply in mixing flour sulphur with the salt given to the sheep, in a proportion just sufficient to discolor perceptibly the salt; or about one eightieth part. Sulphur may be had in New-York city at a wholesale price about one-fourth of that commonly charged by the pound, making the sulphur and labor of application not over two cents per head.

From some experiments we have made with other diseases of a similar character, we should much prefer a solution of chloride of lime, to any other application, where the local virulence of the disease is such as to render local treatment necessary, *in addition to the sulphur*, especially in case of fine and costly animals.

Flockmasters in Germany separate the diseases incidental to the foot of the sheep into two kinds—infectious and non-infectious; or better, into the virulent and the mild foot-rot; for although the common foot-rot is there considered by some as non-infectious, it is perhaps only comparatively so, being attended with little or no danger, and often disappearing without the application of a remedy, although through neglect it may degenerate into the virulent or infectious state. The following remarks relate, I think, to the disease alluded to by Mr. Watkins, and which he supposes to have been introduced into England of late years; in Germany, they trace its origin in that country to the introduction of the Merino sheep. It first shows itself in the limping gait of the animal, which gradually increases; generally commencing with one of the fore-feet, afterward both are affected, and at last this lameness extends to the hinder feet, with increasing bodily weakness.

The diseased foot is hot, and is often swollen round the hoof, which is more open or wider apart than on the sound foot, and the skin of the coronet is inflamed. An unpleasant smelling humor exudes, which thickens on exposure to the atmosphere, and not only inflames and destroys the immediately surrounding skin, but often penetrates between the horn of the hoof and the foot itself, the horny part partially separating from the flesh; and in the worst cases an entire separation of the hoof takes place, and if neglected, destroying the muscles and sinews, and attacking even the bones of the feet; in which condition the poor animal moves about on its knees, or helplessly lies down, the whole system gradually becomes poisoned, and although generally with unimpaired appetite, it wastes away until death releases it from suffering.

The worst form of this disease is not so often met with in the coarser Merino flocks, as in those where every care is taken in improving the fineness and quality of wool, by which means they are rendered more susceptible to the changes of temperature and weather. It is of a very infectious nature, if proper precaution be not taken, spreading through an entire flock in a month or two, and is often introduced by merely driving sound sheep over land where diseased sheep have been a short time previously.

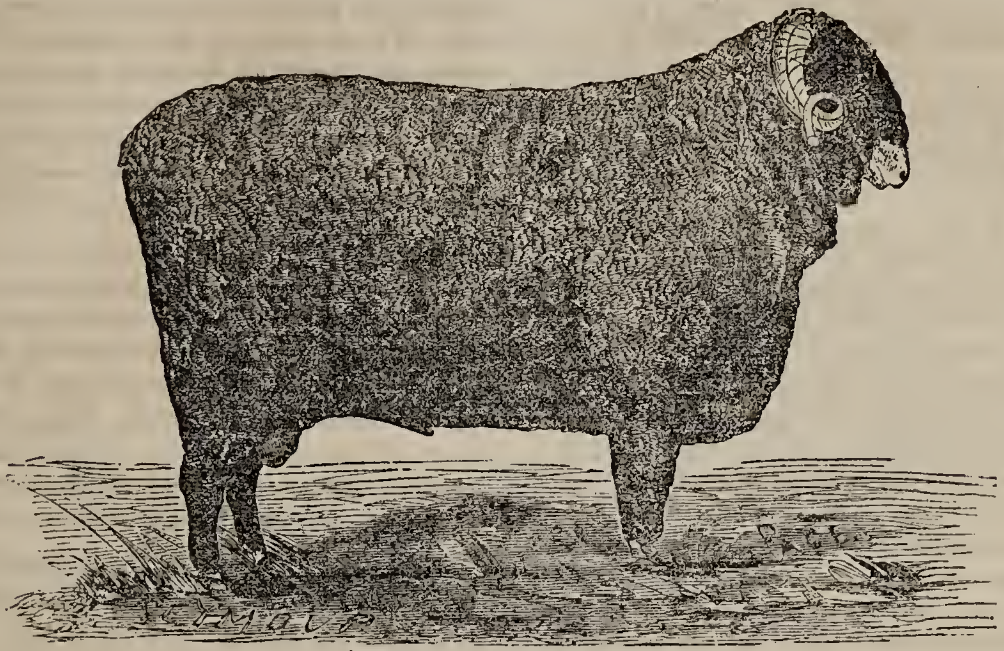
Precaution is the oldest and best remedy; but thorough cleanliness, wholesome food, and attention to the flock in wet and inclement weather, will not always keep the disease away, as long as there are so many channels for introducing it; should it exist in the neighborhood, the shepherd must keep a vigilant eye on his flock; a sheep observed to be lame must be immediately examined. If a small eruption or pimple appears on the skin between the hoofs (coronet), and the foot is unnaturally hot, the disease has made its appearance, and no time must be lost in applying a remedy; the diseased sheep must be kept by itself, and all the flock very carefully examined.

With a sheep knife remove the scab or pimple, clean out the wound to the sound flesh, wash it with salt and water, and then do it over with strong nitric acid. If the disease has advanced under the horn of the hoof, all the unsound flesh, together with the horn, must be carefully removed, the wound washed out with brine, and strong nitric acid applied; some recommend using sulphate of copper instead of brine, and butter of antimony in the place of nitric acid; but with the brine and acid a cure is generally effected in eight or nine days. Another remedy is, a concentrated solution of chloride of calcium dissolved in water; after the feet are well washed and cleansed, and all diseased parts removed, they are carefully painted over with the chloride, as far as the ankle-joint, using a small painter's brush for the purpose: and it is best to apply it also to those which have only heat in their feet. It is a safe and good remedy.

Permanent Pastures and Re-Seeding.

Many skillful graziers prefer old and permanent pastures to those which have been newly seeded, in consequence of the reputed superiority of the fine and soft grass of the former, to the coarse and harsh food from the latter. We have long since been convinced that the great reason of this difference is owing to the thin and scanty seeding which new grass lands commonly receive, and which infallibly causes a large and coarse growth, if the land possesses any fertility. We have ascertained by actual experiment that by tripling the usual quantity of seed, the grass is not only fine and agreeable to cattle, but that it is about doubled in quantity.

Permanent pastures, in this country, after remaining unbroken for many years, usually decline in the quantity of their product. This is not only the case on upland, but generally so on lowland, or on what is called *flats* or intervale, with the exception of such as is annually overflowed, and receives by this means a deposit of enriching mud, and often an accidental re-seeding. We have never known a single instance where unflood-



French Merino Buck, Washington.

Imported by J. C. Taintor, of Connecticut; owned by Wm. G. Wise, Fleming, Cayuga Co., N. Y.

ed lands did not decrease in the amount of their crops after lying long in meadow or pasture.

In corroboration of these views, and for the purpose of furnishing what appears to be an excellent way of treating such lands as we have spoken of, we copy the following communication, which appeared in a late number of the New England Farmer:—

MR. EDITOR—Feeling deeply interested in the improvement of agriculture, I esteem it a privilege, as well as a duty, to make known what I think to be an improvement, that others who are situated on like soils may profit by my experience. Corn and hay are the two most reliable crops in this region; and how to obtain the most of them with the least expense, is what we ought to study. A part of my land is too wet for common cultivation, but good for hay. I find it most profitable to turn it up once in four or five years. I have tried plowing in September and seeding down, and have succeeded well. For a number of years past I have practiced taking off one crop of corn, and then seeding down to grass, which I think is much more profitable. My method has been to turn up the land in the fall, laying it off in beds about two rods wide, and put the manure in compact heaps near enough to transport it by hand. So that I need no team but a horse to go upon it in the spring; by this means I can plant about as early as common land. As soon as the corn is hard enough to ripen on the stalk, I cut it up, carry it off and stook it and sow the land with grass seed immediately, always spreading on a small coat of compost manure. By this method I have never failed of getting a good crop of corn, and can get the land smooth and suitable for good mowing with little labor. By this management I think I can obtain as much corn from my low land as from my high, and keep it in good order for hay. THOMAS HASKELL. *Gloucester.*

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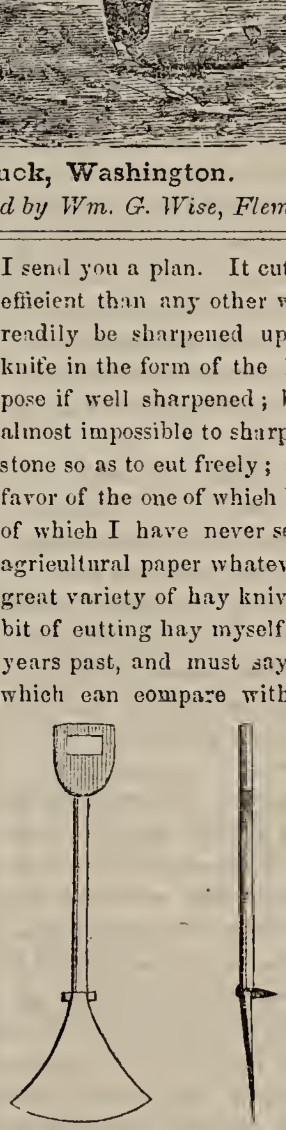
The Crescent Hay-Knife.

MESSRS. EDITORS—I enclose to you the plan and description of a useful hay knife, which I would thank you to insert in the Cultivator. After using for several years variously formed hay knives, and among the rest one in the form of the letter Y, and finding no one which fully pleased me, I contrived the one of which I send you a plan. It cuts free and easy, and is more efficient than any other which I have seen, and can readily be sharpened upon the grindstone. A hay knife in the form of the letter Y answers a good purpose if well sharpened; but by experience I found it almost impossible to sharpen such a knife with a grindstone so as to cut freely; and therefore discarded it in favor of the one of which I send you a description, and of which I have never seen a representation in any agricultural paper whatever. I have seen and used a great variety of hay knives, and have been in the habit of cutting hay myself almost every year for many years past, and must say that I have found nothing which can compare with this kind of knife.



Front view. *Side view.*

DESCRIPTION.—The whole length, 3 feet 1 inch; length of handle, 2 feet 2½ inches; length of the blade, 10½ inches; width of blade, 11 inches. The spur to be placed at bottom of the handle—length, 2½ inches. The blade should deflect from the line of the handle at an angle of 8 or 10 degrees, so as to keep the hands clear of the mow or stack in using it.

H. J. CANFIELD.

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A SMALL MISTAKE.—The printer altered *oblate to ovate* in our late notice of the Druid Hill Peach, these two terms having diametrically opposite meanings, and the Horticulturist, copying the notice perpetrated the blunder, although subsequently corrected in this paper. Those who, like us, are afraid of losing what little reputation they have for accuracy, do not like to be represented as committing even small blunders.

Notes for the Month.

Acknowledgments.—We are under obligations to

Hon. Wm. H. Seward, U. S. Senate, for Report of the Commissioner of Patents for 1853—Part II—Agriculture.

Col. B. P. Johnson, Sec'y, for Transactions N. Y S Ag. Society for 1853.

C. Van Benthuysen, State Printer, for Transactions of the American Institute for 1853.

To some unknown friend, for copies of the Report of the Indiana State Board of Agriculture for the years 1852 and 1853, and also for Addresses of Gov Wright and Rev. Dr. Berry, Prest. Asberry University.

And to numerous friends for copies of Ag. Addresses to which we shall refer as opportunity offers.

☞ We shall be greatly obliged if any of our friends in Congress, will send us a copy of De Bow's Census Report.

Model Ewe.—Our thanks are due to J. Thorne, Esq , Washington, Duchess Co., for a fine model of one of his beautiful imported South Down Ewes.

Young Duke.—We are indebted to Messrs. Morris and Becar for a beautiful plaster cast of "Young Duke," their South Down Ram, recently purchased from the flock of Mr. Jonas Webb. It is proper to add that we understand that Mr. Morris has recently purchased Mr. Becar's interest in their South Down importations, and that consequently they now belong to Mr. M. alone.

"Know Nothing."—Our readers are aware that this new party entirely demolished all the old party organizations at the late election in Massachusetts. Among the new officers elected, we notice the name of our old friend Simon Brown, Esq., the present sound and capable editor of the N. E. Farmer as Lieut. Governor. If the Know Nothings never do a worse thing than to elect such men as Mr. B. to office, we shall have no occasion to find fault with them.

Hop Culture.—A correspondent in Oswego, wishes to know whether "the foreign demand and the home consumption of hops for *other purposes than brewing*, is likely to be such as to warrant their culture at this time." If our correspondent does not propose to dispose of his hops to the brewers, we advise him not to undertake their culture, as we know of no other demand for them which would be likely to make them a remunerating crop. We have no means of answering his questions as to the proportion of hops grown in this country, which are exported or used for other purposes than beer-making. It is however, we presume, small in both cases.

The Northern Muscadine Grape.—G. B. Avery of New-Lebanon, writes us a long letter about our notice of this grape. We wish Mr. A. had put what he had to say in favor of this grape into such a shape that we could have transferred it to our columns without occupying too much space. He thinks the specimens sent us, obtained their foxy flavor from other grapes sent in the box with them, as he never before heard of any person who had tasted it, pronouncing it foxy. We are certainly, as he supposes, "ready to correct an error," and cheerfully give the Northern Muscadine the benefit of this opinion. We cannot, however, agree with him in ascribing to this grape, superior or even equal merit to the Isabella or Catawba. Its earliness will make it a favorite where other and superior sorts will not mature.

Large Squashes, &c.—Mr. John McKee, Bristol, Vermont, writes us as follows:—"I raised this year from two winter squash seed, the following product—6 squashes—1st, 140 lbs.—2d, 128 lbs.—3d, 119 lbs.—4th, 107 lbs.—5th, 97 lbs.—6th, 86 lbs. If any of your readers would like to make a trial of them, they can do so by writing to me. Also some of the celebrated Old Colony Sweet corn, and Mammoth water melon."

Farmers Should Read.—A new subscriber in Michigan, in remitting his subscription says—"You would think, to see my packages of papers as they come from the post office daily, that I had as much reading matter as I ought to find time to read, and manage a farm of 1200 acres. But not so. I find time daily to read all my papers, particularly those pertaining to agriculture, because they contain the very gist of what I want to know. No man can be an intelligent and successful farmer, without half a dozen of the best agricultural papers that can be selected."

Two and a Half Tons of Wheat from an Acre.—The California papers state that the premium for the best crop of wheat at their late State Fair, was awarded to J. B. Hill of Salinas, Monterey. The crop consisted of 229 acres, the whole averaging *sixty* bushels per acre, and the largest yield from one acre, *eighty-two and a half bushels* of 60 lbs. each.

Bees.—C. M. Saxton, 152 Fulton St., New York, has recently published a new edition of that valuable work on managing the Honey Bee, by our old friend, John M. Weeks, of Vermont. It has been corrected, revised and enlarged, and is neatly got up by the publisher—price 50 cents. We have no doubt apiarians, large or small, will find it a useful assistant in the care of their hives and honey.

The Ohio Farmer.—This is a large folio sheet published at Cleveland, by Thomas Brown, weekly, at $2.00. It has now been published nearly three years, and has been steadily growing more and more attractive, until it exhibits a taste and industry rarely to be met with in our weekly journals. The farmers of Ohio have sound and able representatives in this and the Ohio Cultivator, at Columbus, semi-monthly, by Messrs. Bateham & Harris.

Plans of Houses.—A correspondent in Nova Scotia, sends us two plans for houses. We are sorry that we cannot agree with him as to their merits. The arrangement of No. 2 is similar to many to be found in almost every part of the country, while that of No. 1, is objectionable on account of the want of a fire-place, or at least a chimney into which a stove-pipe could be carried, in the kitchen, and on account of the want of light in the kitchen, which can have but one small window, and that so situated as to be of but little use. No farm-house can be considered well-arranged that does not possess a commodious and well lighted kitchen.

Advertisements.—The attention of farmers will be attracted to the advertisement of "*Allen's Patent Mower*," in which its peculiar advantages are set forth—also to the "*Ditch Digger*," advertised by Pratt & Bros., of Canandaigua, a machine which promises to be of the highest importance to our agriculture.

A Good Move.—On the 5th inst. Mr. Wentworth of Ill. offered the following resolution in the House of Representatives:

Resolved, That the Committee on Agriculture inquire into the expediency of establishing a National Agricultural School, upon the same principle with the National Naval and Military Schools, to have one scholar, educated at the public expense, from each congressional district, and to be established in connection with the Smithsonian Institution, so as the better to carry out the object of its founder.

Very good, so far, and we are greatly obliged to Mr. Wentworth; but will the resolution be passed, and if it is, will the committee on agriculture press the matter on the attention of Congress? Judging from the past, we fear not. But, remember farmers, there's a "good time coming," when your voices will be heard at Washington as well as at the several state capitals. Aside from its warlike tendency, we consider the Military Academy at West Point, the best educational institution in the United States. An Agricultural Academy, conducted with the same energy and thoroughness, would be of incalculable advantage to our country.

Soaking Fence Posts.—In answer to an inquiry published sometime since, about saturating posts with a solution of blue vitriol, S. B. S. of Granville, Mass., writes us as follows:

"Not many weeks since I sent you a paragraph, cut from the Boston Post, relating to the use of blue vitriol, in solution, for preparing stakes and posts to prevent rot. My object in doing so was to recommend its adoption, because I have no doubt of the truth of all I communicated on the subject. You may rest assured that there is no humbug about it.

"Mr. Green, (Geo. B. Green, Windsor, Vt.) has tried the experiment, not only on posts, but also on spouts and shingles, and every species of wood that needs preservation. It is he, I suppose, to whom you have written, without receiving a reply.

"I may as well add that Mr. Green gives the preference, I think, to the other solution which I mentioned to you, and which I have now tried on white birch bean poles, two summers, the same being now very sound. If you want this recipe I suppose I can get permission to send it."

We shall be glad to receive the recipe alluded to.

Couch Grass.—This is one of the worst pests on a farm, as all our readers know who have had any experience with it. Mr. Wm. Shuler of Montgomery county, informs us that he had a field entirely over-run with it. Late in the fall, he plowed the land to the depth of eight or nine inches, being careful to turn the furrows over compactly, so as thoroughly to bury all the roots. In preparing it for a crop in the spring, the land was plowed only about four inches deep, so as not to disturb the roots of the couch grass. The result was its almost entire destruction.

Brookfield Town Fair.—The annual exhibition of the Brookfield (Mad. Co.) Town Ag. Society, was held at Clarkville, on the 4th and 5th of Oct., and was eminently successful in the extent of the articles exhibited, and in the large attendance, estimated to amount on the last day, to from 6,000 to 8,000. The address was delivered by A. N. Sheldon, Esq., of Hamilton. The entries were as follows:—Horses, 73; Cattle 107; Sheep 32; Swine 7; Dairies 17; Poultry 36; Field and Root crops 19; Fruit 22; Domestic Manufactures 37; Tailoring, Millinery, &c. 7; Needle Work 30; Mechanics 11; Discretionary 54; Foreign 10. Premiums to the amount of over $250 were awarded. Pretty well for a Town Society.

The Great Wheat Crops of California.—We gave last week, an account of the wheat crop to which was awarded the first prize at the late State Fair in California. Having since received the official report, we place on record the following statement in relation to the three prize crops. Is there any record of crops that equal them in amount produced per acre?

Wheat.—After careful examination of the lots submitted, we award the first premium of $30 for the best 10 acres or more to J. Bryant Hill, of Monterey, his wheat having the largest yield, being an average of 60 bushels per acre on 229 acres; the largest yield being 82 1-2 bushels per acre. The wheat raised from Chili seed of fine quality.

The second premium of $25 we award to Messrs. Hutchinson & Green, of Yolo, they having presented 200 acres at an average yield of 52 1-2 bushels of 60 lbs. per bushel, while portions of crops in the same field averaged 66 2-3 bushels per acre. The wheat also of Chili seed and the grain of very superior quality.

The third premium of $20 to Mr. J. E. Johnson, of San Jose—this lot of wheat averaged 67 1-2 bushels on 10 acres.

Manures.—A correspondent very much wishes to be made acquainted with the most approved method of using superphosphate of lime, and we shall be obliged to any of our readers for the desired information. Our correspondent very justly remarks—"I take it for granted that the knowledge and art of manuring lands, as a means of perfecting the science of agriculture, is he first, and the second, and the third requisite of good farming. All other knowledge is merely incidental, but this would seem to comprise the main, I had almost said the whole object of inquiry."

The writer will find the article to which he refers on page 406, Co. Gent. vol. 3, and in the Cult. for 1854, p. 239. We are publishing so much weekly on the subject of manures, that it will hardly answer to republish articles which have so recently appeared. Will not "Many Subscribers" become a contributor to our pages.

The Cultivator—The Country Gentleman—The Illustrated Register of Rural Affairs and Cultivator Almanac—Albany, N. Y., Luther Tucker.

The Cultivator has now been published twenty years, and still holds its position as unsurpassed, in its class, for the ability and excellent taste and judgment with which it is conducted. Published monthly at 50 cents a year.

The Country Gentleman, weekly, a beautiful paper, and, besides all that we look for in an Agricultural Journal, embracing admirably conducted departments of news, and for fireside instruction and amusement, is published at $2 a year, with liberal discount to clubs.

The Register, 144 pages, with over 100 engravings, price 25 cents—sent by mail post-paid. This is intended as the first of a series.

The style in which Mr. Tucker gets up his publications is admirable.—*Vermont Chronicle.*

☞ We will send a copy of the Illustrated Annual Register, post-paid, to every newspaper which will copy the above.

Ohio Farms for Sale.—Attention is invited to the advertisement of N. B. Hogg, Esq., of Newark, who advertises three valuable and desirably located farms for sale. Mr. Hogg we learn, finds it necessary to change his location in consequence of the loss of a brother who was on board the ill-fated Arctic, and will in the spring sell off the fine stock of horses, cattle, sheep and swine, which he has been so industriously collecting on his farms at Newark.

Ohio Ag. College.—An association has been organized and incorporated, as "the Ohio Ag. College," located at Oberlin, Lorain Co. The plan proposed is, to give Courses of Lectures during the Winter months, on all the several departments of Agricultural Science, each principal division being assigned to a different Lecturer, and systematically presented in the same manner, as Medical Science is taught in Medical Colleges.

The first term, we understand, is to commence on the 4th of Dec. and courses of lectures are to be delivered by Prof. Dascomb, on chemistry, in all its applications to soils, manures, &c.—by Prof. Townshend on comparative anatomy, physiology, &c.—by Prof. Newberry, on Botany, Geology, &c., and by Prof. Fairchild on Natural Philosophy, Agricultural Mechanics, &c. Terms for the course, (four lectures daily,) $40. The design is a good one, and we shall be glad to know that there are young farmers enough ready to avail themselves of its advantages to encourage the association to go on with their efforts to promote the cause of agricultural education.

PEAR STOCKS.

THE undersigned offers the following:

400,000 One year Seedling Pear Stocks, very fine.

100,000 One year Seedling Pear Stocks, extra fine and good,

100,000 Two year Seedling Pear Stocks, very strong and good.

The quantity of these stocks in this country and Europe at the present time, is very limited. Persons, therefore, requiring any, should make early application. The whole are remarkably clean, vigorous and good stocks. Prices reasonable.

JOHN SAUL.
Dec. 21—w3,5,7—m1t Washington City, D. C.

EVERGREEN TREES, &C.

THE undersigned offers to his friends and the public an extensive collection of Evergreens, including the popular as well as rarer kinds, Gooseberries, Currants, Raspberries, &c., all of finest quality, among which are the following:

500 African Cedars, (Cedrus Africana,) 6 to 12 inches.
2,000 Deodoras, (Cedrus deodora,) 4 to 18 inches.
20,000 Scotch Fir, 3 to 6 inches.
500,000 Silver Fir, (European,) 4 to 7 inches
1,000,090 Norway Spruce, 4 to 8 inches.
5,000 English Yews, 6 to 12 inches.
2,000 Irish Yews, 1 to 2 feet.
50,000 Larch, (European.) 4 to 6 inches.
20,000 Weeping Birch, 4 to 6 inches.
40,000 Currants, Victoria, Red and White Dutch, White and Red Grape, Black, Naples, &c.
50,000 Gooseberries, all the popular, standard kinds, as well as the new large show varieties.
20,000 Raspberries, Fastolff, Magnum Bonum, Red and White Antwerp.
5,000 strong Plums, leading varieties.

JOHN SAUL.
Dec. 21—w3,5,7—m1t Washington City, D. C.

WM. R. PRINCE & CO.

FLUSHING, N. Y.,

WILL supply 250,000 stocks of the following kinds:—Apple, Pear, Plum, Cherry, Mahaleb, Angers Quince, Doucin and Paradise Apple. Norway Spruce and other evergreens. Also Seeds in quantity of Apple, Pear, Plum, Cherry, Angers Quince, Peach, Apricot, Catawba Grape, Yellow and Honey Locust, Osage Orange, Pines, Spruces, Magnolias, Larch, and other trees and shrubs, of which a priced Catalogue will be sent to applicants. Orders must be immediate or they cannot be reserved. A Wholesale General Catalogue for Nurseries will be sent to applicants.

Dec. 21—m1t*

THREE
Valuable and Highly Cultivated Farms
FOR SALE.

THE subscriber offers at private sale three most desirable Farms, situate in the vicinity of Newark, Licking County, Ohio, to-wit:—

1st. His CHERRY VALLEY FARM, on the old Columbus road, two miles west of Newark, containing two hundred acres, one hundred and forty of which are cleared. On this farm are two large young orchards, two large new frame houses, a smoke house, barn, new stable for fifty horses, sheds, chicken houses, hog pens, etc.; a large garden handsomely fenced in, and indeed every convenience and even luxury that can be desirable on a farm. This farm is in the highest state of cultivation, no labor or expense having been spared to render it a model farm in this, as in all other particulars.

2d. His RICHLAND FARM, also known as the Taylor or Fullerton Farm, situate on the road to Hebron and also on the Ohio Canal, two miles from Newark, and containing 139 acres, (100 of which are cleared.) There is a good log house and stable on this farm, which is in a high state of cultivation and cannot be surpassed for fertility.

3d. His ENGLISH FARM, situated on Ramp Creek on one of the roads to Hebron, four miles from Newark, and containing 133 acres, about 80 of which are cleared. On this farm are two small old frame houses, a large frame barn, a new saw-mill, and corn cracker and crusher. This farm is also in a highly cultivated state.

Also, a number of OUT LOTS, of every size, for sale.

Persons desirous of purchasing a good farm, in admirable order, will find it to their advantage to call on the subscriber at his house in Newark, Ohio, where he can be seen at all times.

Time will be given to the purchaser if desired, and possession on the first day of April, 1855. N. B. HOGG.
Nov. 23, 1854—w&m3m. Newark, Ohio.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Thomas Gould,

BREEDER OF DEVON CATTLE, Suffolk Swine, Madagascar or Lop-Eared Rabbits, and choice and fancy Poultry, Aurora, Cayuga county, N. Y. Mar. 23—w&mtf

The Iowa Farmer,

PUBLISHED monthly, in Burlington, Iowa. Price One Dollar a year. Devoted to the advancement of West-

THE ILLUSTRATED

Annual Register of Rural Affairs

AND

CULTIVATOR ALMANAC for 1855,

ILLUSTRATED WITH

More than One Hundred Engravings.

In one 12 mo. vol., 144 *pp.,—price* 25 *cents.*

THE SUBJECTS TREATED IN THIS VOLUME, embrace—

I. CALENDAR PAGES for the year 1855, calculated for the meridians of Boston, New-York, Baltimore and San Francisco.

II. COUNTRY DWELLINGS—including Designs for a Symmetrical Farm-House—an Italian Country House—a Cheap Farm-House—Working-men's Cottages, and Directions for Improving old Houses—with TEN ENGRAVINGS.

III. IMPROVING AND PLANTING GROUNDS—Flower Gardens—Geometric and Natural Planting—Form of Trees—Supports for Climbers—the whole illustrated with TWENTY-ONE ENGRAVINGS.

IV. THE CULTURE OF FRUIT—Preparation of the Soil—Draining—Distances and Laying out the Ground—Transplanting—Its Proper Season—After Management—Cultivation of the Soil—Pruning—Grafting—Budding—Diseases and Enemies of Fruits—List of the Best Sorts. This department is illustrated by FORTY FIGURES.

V FARM BUILDINGS—Plan of Barn and Stables—Of Piggery—Of Poultry House—Of Ashery and Smoke House—Construction of Cisterns,—with ELEVEN ILLUSTRATIONS.

VI. FARM IMPLEMENTS, &c.—Mowers and Reapers—Machines to Pulverize the Soil—Wind Mills—Stump Machines—Feeding Troughs—Painting Implements—with NINETEEN ILLUSTRATIONS.

VII. IMPROVEMENT IN ANIMALS—Cattle—Horses Sheep—Swine—Terms denoting External Parts of Animals—Heaves in Horses—with SEVENTEEN ILLUSTRATIONS.

VIII. FARM ECONOMY—Improved Farm Management—Rotation of Crops—Laying out Farms, with THREE ILLUSTRATIONS—How Young Farmers may Practice Economy—Plans Laid in Winter—Construction of Lightning Rods—Fruit Drying.

IX. MISCELLANEOUS MATTERS—Embracing a great variety of valuable Hints and Suggestions for the Farmer, Gardener and Housekeeper.

Recapitulation of Illustrations.

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It will be seen from this abstract of the contents of the *Illustrated Annual Register*, that it has been prepared with special regard to the wants of our rural population. and we hazard little in saying that it will afford more valuable information on several of the subjects of which it treats, than has ever before been presented at so small a cost. The chapters on Country Dwellings—Improving and Planting Grounds, and the Culture of Fruit. have been prepared by Mr. J. J. THOMAS, with his usual taste and ability. expressly for this work, and are each well worth more than its cost.

This number of the Annual Register is intended as the first of a series. to be issued annually at or near the close of each year. Filled as they will be mainly with matter of permanent interest, they will form a series which no man, having a farm or garden. or hopes of future retirement to rural scenes, should be without.

Address orders for single copies. or applications for terms at wholesale, to
LUTHER TUCKER,
Albany, N. Y.

☞ For nine 3 cent postage stamps, one copy will be sent by mail, post-paid, and four copies for $1.

ANDRE LE ROY'S NURSERIES

AT ANGERS, FRANCE.

ANDRE LE ROY begs to inform his numerous friends that he is now prepared to execute all orders for TREES. EVERGREENS, SHRUBS, STOCKS, &c. entrusted to his care. His trees, &c. are very fine this year, and his collection very complete. Orders should be sent at once so as to secure the different kinds. The best care will be given to all orders as usual. The Angers Quince Stocks have not succeeded well this year and are scarce and high. Orders should, as usual, be addressed to our agent in New-York, Mr. EDOUARD BOSSANGE, who will give all the information desired, and mail in application free of charges, a detailed copy of my catalogue with prices in dollars and cents.

Nov. 9—w1t—m2t.

EXCELSIOR HORSE POWER

and Threshing Machines.

THIS Portable Lever Four Horse Power is an improvement on Warren's Patent, (which we own,) and by an experience of more than three years, it proves to be the best and cheapest yet known. None have ever failed to give entire satisfaction in all respects. It is simple in construction, and easily understood by any operator. It may be used with one to four horses. We therefore offer it to the public as a most desirable machine for various purposes.

The Thresher is a superior Spike Machine suited for the Power. With these machines 200 bushels or more of dry Wheat are threshed in a day.

Weight of Power about 550 lbs.—Weight of Main Driving Wheel 300 lbs.—or altogether about 900 lbs. Weight of Thresher 200 lbs.

Price of Power and Pully Box, &c., $85.

Cost of Patent Riveted Stretch Leatheed Band, 3¼ inch wide, 40 feet long, $7.50.

Price of Threshers, No 1 and 2, $40 and $45.

Orders will be duly attended to.

☞ Terms cash on delivery in this city.

PLANT BROTHERS.
Gen'l Com. Merch'ts,
Oct. 26—w1tm2t. 75 Pine street, New York.

POULTRY FOR SALE.

THE subscriber who has had several years careful experience in breeding fowls, has a few choice pairs to sell, at reasonable prices, of the following varieties, viz: Grey, Black, Buff and White, Shanghai—Silver and Golden Poland, Black Spanish, Bolton Grey, or Silver Hamburg, Santa Anna Hen Feather Game, Java and African Bantams, and Superior African Geese. Also choice Black and Tan Terrier Dogs.

E. E. PLATT.
Nov. 9. 1854—w&mtf. Albany.

Albany Agricultural Works,

Warehouse and Seed Store, 369 *and* 371 *Broadway, Albany.*

THE subscriber having purchased the stock in trade of the above works, is now prepared to furnish to order a full assortment of Farm Implements and Machines adapted to all sections of the country, both north and south, among which may be found—

"*Emery's Patent Changeable Railroad Horse Powers.*"
Overshot Threshing Machines with Separators.
Mowing and Reaping Machines.
Grist-mills. Corn-shellers and Clover-hullers.

Circular and Cross-cut Saw-mills, adapted to the horse power. for cutting fire wood and fence stuff, with a full and complete assortment of FIELD AND GARDEN SEEDS and FERTILIZERS. For further particulars, full Catalogue will be sent on application by mail.

RICH'D H. PEASE,
March 30—w&mtf Successor to Emery & Co.

Superphosphate of Lime,

From the Eagle Chemical Works of Staten Island

THE subscriber begs leave to inform the Farmers and Gardeners who have left orders for the above manure, that he is now prepared to deliver the same either from the Works on Staten Island, or from the Depot in New-York. Other persons requiring supplies of this well known and valuable fertilizer, are requested to make application early as the demand for this season will be large.

ALFRED F. KEMP,
March 16—wtf No. 62 Beaver-street, New-York.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

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MORE than ONE HUNDRED different kinds of Plows, and a large assortment of other Implements for the Farm, Plantation and Garden.

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A FULL assortment of all kinds cultivated in the United States—fresh and pure.

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PERUVIAN GUANO, Superphosphate of Lime, Bone-dust, Poudrette, Plaster of Paris, &c.

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Jan. 1—w1tm1t.

IMPROVED SHORT-HORNS.

DURHAM Bull and Heifer Calves, descended from the herds of Mr. Bates and his nephew Mr. Bell, for sale.

HERMAN WENDELL, M. D.
Nov. 23—wtf
Albany.

Agricultural Books,

For sale at the office of the Country Gentleman.

A CARD.

DR. ROBERT L. WATERBURY, late of Fergusonville, has opened an office at 199 West Fourteenth St., New York (near Eighth Avenue) where his correspondents are requested to address him, and where his old professional friends on visiting the City may find him.

Dec. 21—w4t.

ALLEN'S PATENT MOWER.

THE MOST PERFECT MACHINE YET INVENTED.

THIS MACHINE was patented in 1852, and has been used by a large number of intelligent farmers for two seasons; and so superior has it proved itself over all others, that it is now greatly preferred wherever known.

This superiority consists:

1st. In perfectly cutting any kind of grass, whether fine or coarse, lodged or standing, and Salt Meadows as well as upland.

2d. Owing to the form of the knife and its rasp patent, it does not clog even in the finest grass.

3d. The gearing being hung on horizontal shafts and justly balanced, enables the mower to run perfectly true in a straight or curved line, and with one-third less draught than any other yet made. It also runs with much less noise, and with no jerking motion, in consequence of the knife being operated by a wheel instead of a crank. The knife can be taken off or put on in a moment, without the necessity of passing it through the arms of the driving wheel. This is a very great convenience, and obviates a serious objection to Mowing Machines.

4th. The superior gearing enables the knife to play with sufficient rapidity to do its work well, at a speed of not over two and a half to three miles per hour. Most other Mowers require the team to walk at the rate of four miles per hour, which is very distressing to the horses.

5th. A smaller wheel is attached to this Mower, by a spring axle, which runs parallel with the driving wheel. This enables the machine when thrown out of gear, to be driven over the field or along the road as readily as if hung on a pair of wagon-wheels.

6th. A reaping-board can be attached when required, thus making it a Reaper or Mower, as desired.

7th. This mower is made in the most perfect manner, and is guaranteed to give satisfaction.

Agents are solicited to sell the above Machine.

R. L. ALLEN, 189 and 191 Water-st., New-York.
Jan. 1—w1tm1t.

Ditch Diggers, Tile and Brick Machines,

Manufactured by PRATT & BROS., Canandaigua, N. Y.

THE Ditch Digger and Tile Machine were constructed to cheapen and extend Drainage. Ditches must be made cheaper and faster, and Tile must be made easily, simply and extensively. The Farmer feels it and agriculture demands it: and we beg leave to say to all interested, that these machines will accomplish the object.

We warrant our Ditch Digger to be capable of cutting from fifty to 150 rods of Ditch in a day, by the use of one man and two horses, not less than 2½ feet deep; and that this implement is made in a thorough and workmanlike manner.

We warrant our Tile Machine to be capable of making from tempered clay, 10 to 15,000 Tile or Brick in a day, by the use of two horses—grinding the mud and making the Tile or Brick at the same time and by the same operation—using steam or water power with equal facility.

This Tile Machine enables Brick makers to make Tile and Tile makers to make Brick, changing from one to the other in less than 5 minutes, and the cost of the Machine is no more than those in ordinary use, it being the simplest arrangement known. The quality of Brick made, is but a little inferior to pressed Brick.

Farmers, if you want Tile made cheap and near you, see yourselves that it is done. See to it that *some one* gets a machine and makes them. Farmers, if you want Ditches made quickly and cheaply, buy a Ditch Digger, or find a man that will do it. Farmers and others, if you want to see these machines at work, come when frost has disappeared and see them. We shall be ready, and take pleasure in showing them to you.

Brick makers, do you want to change your business for the better? Then make Tile and better Brick, and you will be the gainer, and agriculture accommodated. We have a large number of Tile Dies from which to select.

Dealers in Agricultural Implements, we will supply you on favorable terms. Persons wanting exclusive Patent privileges, we will negociate with you. All, wanting any further information, will please address

PRATT & BROS
Canandaigua, N. Y.
Dec. 21—w&mtf.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. III. ALBANY, FEBRUARY, 1855. No. II.

PUBLISHED BY LUTHER TUCKER,
395 *BROADWAY, ALBANY, N. Y.*

LUTHER TUCKER AND JOHN J. THOMAS, EDITORS.

Terms—Single copy of Cultivator,............ 50 cents.
Twenty copies Cultivator and twenty copies Illustrated Annual Register, } $10.00.

AGENCY IN NEW-YORK.—C. M. SAXTON, *Agricultural Book Publisher*, No. 152 Fulton-street, New-York, is Agent for THE CULTIVATOR and THE COUNTRY GENTLEMAN and subscribers in that city who apply to him, can have their papers delivered regularly at their houses.

The Cultivator and its Friends.

There are some suggestions we should like to make to our friends, while we heartily congratulate them on the prospects of THE CULTIVATOR for 1855, and as heartily thank them for their instrumentality in bringing them about. We have endeavored to answer most of their remittances by letter,—we did hope to be able to acknowledge all thus personally,—but they have poured in upon us too rapidly to admit of this,—and it is therefore necessary to call attention here to some points on which many correspondents have requested an explanation, which, if possible, would have been given by letter.

Our Premium List,

To which we desire to call particular attention, not only because it has not been clearly understood by some, but also because there are yet upwards of TWO MONTHS before it is to be decided,—will be found to offer great inducements for exertion on the part of agents, who can in any way spare the time necessary for canvassing their neighborhoods thoroughly. We cannot believe but that every man who takes a paper of any kind whatever, will on being shown the value of THE CULTIVATOR and REGISTER, and their unprecedented cheapness, gladly consent to subscribe for it. There are numbers of our friends who have already sent in considerable lists, a little exertion on whose part would place them beyond the reach of competition as far as several of the prizes are concerned. And there are many others, who are living where there is a great and growing appetite for agricultural reading of the *best and most reliable* kind, and who might overtake and outstrip former competitors, if they would spend a little time in earnest efforts, unless indeed the former immediately avail themselves of our first suggestion The more spirited the competition, the more satisfaction the prizes will give, and the greater the benefit to us, and to the agricultural world. We repeat them here :—

1. FOR THE LARGEST AMOUNT OF CASH paid in before the 10th of April next, whether for *The Cultivator* alone, or for the *Country Gentleman*, or for the *Illustrated Annual Register*, or for all three together, according to their respective terms—FIFTY DOLLARS.

2. To the one sending us the next largest amount, FORTY-FIVE DOLLARS.

3. For the next largest,.... FORTY DOLLARS.
4. For the next largest,.... THIRTY-FIVE DOLL'S.
5. For the next largest,.... THIRTY DOLLARS.
6. For the next largest,.... TWENTY-FIVE DOLL'S.
7. For the next largest,.... TWENTY DOLLARS.
8 For the next largest,.... FIFTEEN DOLLARS.
9. For the next largest,.... TEN DOLLARS.
10. For the next largest,.... FIVE DOLLARS.

Our Club Subscribers

Are equally indebted with ourselves to the exertions of the agent by whom they were enrolled, and will they not each and all make some effort to extend our circulation, and thus make his task easier another year, as well as give their neighbors the benefit of our pages. We will take *each subscriber sent by the member of a club*, as an addition to it, and consequently, send him the CULTIVATOR and REGISTER for FIFTY CENTS. Will not agents when they take a man's subscription urge him to assist them in canvassing the town, and themselves send us the names thus obtained.

Where we have now

Single Subscribers, or from One to Ten,

Cannot a full club be made up? The copy of the Register which each one will receive, will be some return for his proportion of the needed exertion, and we can only repeat our offer to *send the Register* to any who purpose thus to exert themselves. And more,—in view of the general depression as to money matters, and with the hope of making the way for such a circulation for THE CULTIVATOR another year, as *no journal of its kind has ever had*—to introduce our *Register* to the field which it is purposed to fill,—that of THE AMERICAN FARMER'S ANNUAL, and to make as many as possible acquainted with its value,—*we will send the* REGISTER *and* CULTIVATOR *both for* FIFTY

Cents, *where our agents do not now succeed in getting a full club of twenty, but send* AT LEAST TEN. This we do, not as making a change in our terms, but to encourage to exertion those who have given up canvassing in despair of not making out a full club of twenty, and depending upon their kind assistance another year to more than double the lists of the present, and thus reimburse us for the very inconsiderable profit which the vast amount of reading given for so little money, now returns us.

The Illustrated Annual Register of Rural Affairs.

We publish in another column, as many of the multitude of commendatory notices which the Register has received, as we can make room for at present,—showing that we do not overrate its beauty and value to the farmer. All unite in saying that "EVERY FARMER SHOULD POSSESS IT" at Twenty-Five cents a copy.—Is it not worth some trouble to procure it as a present?

For a Weekly Rural and Family Journal,

We take occasion here to mention the Country Gentleman, as unequalled by any similar work, and well worthy of the attention of those who are looking about for such a publication. We have too often published extracts from the very flattering notices it has elicited from the press, as well as from the renewed commendations of its subscribers, to make repetition necessary. We shall be happy to furnish specimens. A few sets for the past year are also now for sale either in numbers or bound.

The Bound Volumes of The Cultivator,

Since the commencement of its Third Series in 1853, ought to be in the hands of every subscriber. Price — Bound in superior style, and post paid to any part of the country, $1 each—unbound, or stitched in paper covers, Fifty Cents, at which price we cannot afford to pay the postage. We wish to remind agents, also, that money remitted for these counts with advance subscriptions in competition for our Premiums. We are often met with inquiries for some work on *practical Agriculture generally*, but we know of nothing so well adapted to the Farmer's wants, nor containing so much at a small price,—at once so perfect and so cheap a Text Book of every Farm and Garden operation, as the back and present volumes of The Cultivator,—for it contains the experience of the best farmers, as well as the results obtained by the best minds devoted to their interests.

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We desire to repeat the acknowledgment of our obligations to Correspondents, and to return them our especial thanks. We hope they will continue to contribute to our columns any thing they can to add interest and value to them. And to those who have never yet written for publication, we extend our cordial invitation to make an exception to their usual practice in our favor. Many do not like to impart their experience and relate their experiments, unasked, for fear of intrusion. They will please consider this an especial request to lay before the public *whatever they know*,—not to hide the results of their long labors in the dark, but to give them to the world. It may not perhaps be out of place to suggest to correspondents for *all* the departments of our paper, that the *truth, narrated as simply as possible*, will nearly always find attentive readers.

Register of Rural Affairs.

We copy, from the various notices by the public journals of this work, the following:

"This, instead of being an "Almanac," is a miniature encyclopedia of rural affairs. It contains a vast amount of matter, selected and prepared with good judgment, and arranged and illustrated with excellent taste. John J. Thomas has the credit of its preparation; and this is a guarantee of its value. Every farmer and cottager should have it: the price will place it within the reach of the humblest means and the most rigid economy.—*The Horticulturist.*"

"*Multum in Parvo.* The gist of an encyclopædia! Useful to all men and women, but particularly adapted to agriculturists, horticulturists, gardeners, etc. A copy should be placed in the hands of every farmer." —*Phrenological Journal.*

"This is the neatest and by far the most useful almanac we have seen To the Farmer and the gardener it will be particularly serviceable."—*Spirit of the Times.*

"The 'Register of Rural Affairs,' by Luther Tucker, of Albany, contains a number of conveinent plans for barns, sheds, piggeries, poultry houses, &c. It is a capital thing and should be in the hands of every farmer." —*Granite Farmer.*

"This Volume for the year 1855, affords in our judgment, more valuable information upon subjects of interest to Farmers and Gardeners than any that has ever before been presented to the Public."—*Hudson Gazette.*

"This is an elegant little annual just published, and is one of the finest specimens of the typographical art that we have examined for many days. Its abundant illustrations are of that class most calculated to interest the farmer; and in contents it affords the most invaluable information. This number is the first of a series to be issued annually, and no one should be without so excellent an almanac.'—*Keeseville Republican.*

"This is a little volume that every Farmer in the United States ought to have."—*Jersey Blue.*

"The Illustrated Annual Register, and Cultivator Almanac, is the best thing of its kind we have seen.—Besides all the usual calculations and statistics of an almanac, it gives a great amount of information valuable to those interested in rural affairs, illustrated by 120 fine wood cuts or cottages, farm houses, cattle, farming implements, &c."—*Newark Daily Advertiser.*

"It contains, besides an almanac, a great variety of interesting matter, pertaining to rural affairs, with an abundance of well executed cuts and illustrations. Every Farmer, and each one of his sons and daughters, to say nothing of his wife, should own one of these as his or her especial property; for all will find some valuable hints in it."—*Middletown News.*

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Cultivation of Onions.—I have a piece of low land meadow (black muck) from which I have taken the bogs, and which I have cultivated by raising upon it two successive crops, one of corn and one of buckwheat, I now wish to raise upon it a crop of onions. Will you or some of your subscribers give me a little information in regard to it,—as to how the soil should be prepared—what is the best manure to use—at what time they should be planted, and how cultivated, and which kind of onions yield the best. M. R Luttan. *Franklin Furnace, N. J.*

Hardiness of the Osage Plant.

The opinion has been for some years gaining ground that the Osage Orange will prove sufficiently hardy for hedges, except for the extreme northern portions of the Union. There are however not a few who are still in doubts, not having had a sufficient opportunity for learning all the facts of the case. One principal reason for these doubts is the fact that the limited experiments that have been made were performed under the most adverse circumstances. A single plant, for instance, is procured and planted in the richest soil, because it is a rarity. The high cultivation it receives induces a large, vigorous, and succulent growth, preventing a proper ripening of the wood in autumn, and as an inevitable consequence, subjecting it to destruction by winter frost. We have recently had occasion to observe the difference in result between such treatment as this, and the reverse, which strongly exhibits the influence of growth in hardiness. A portion of a hedge grows in a low place, where the peach crop is killed on an average in half the seasons; but the soil on which it stands is a dry and rather sterile gravel, and as no cultivation has been given it, its growth being retarded by weeds and grass has been not more than two feet in a single season. We could not discover that in any case more than *two inches* of the tips of this growth had been destroyed by the past winter, which all will recollect was remarkable for its severity and unfavorable effects. On a hill forty feet higher, where the peach crop escapes more than three-fourths of the seasons, a few plants were growing in a very deep and rich soil, and their growth being assisted by good cultivation, was some seven feet annually. About three-fourths of each shoot, and in some cases nine-tenths had been winter killed—the dead branches being often *five or six feet* long. So much for the difference between ripened and unripened wood, or slow and rapid growth.

Now, we would not have any one infer from this that we recommend a poor soil and neglected cultivation for hedges. On the contrary it is of the greatest importance. A strong growth must be imparted to the young plants at the outset, in order that they may become firmly rooted, which will enable them to pass through the first winter far more safely and securely than if feebly fixed in the soil, even if the part above ground should have happened to be killed down. This killing down would in fact be of no detriment at all, for no good hedge can be formed unless shorn down when young, to promote a thick growth at the bottom, which would be thicker and better from a strong root than a feeble one. As the hedge advances in height, less of it will be killed back, and in no case no more than should be sheared off for its proper growth. A full formed hedge, on account of its denseness, will protect itself, at the same time that its moderate degree of thriftiness will cause a thorough ripening of the wood. All these causes operating together, render the Osage hedge amply sufficient to endure the hardest winters in most localities in the northern States, especially wherever the peach crop commonly succeeds, and we are inclined to think that when once established, it may answer the purpose out of frosty valleys, even in the extreme northern parts of the country.

Farm Book-Keeping.

In almost every other business, regular accounts are deemed necessary to the proper conducting of its affairs. The manufacturer might get along in the same guess-work way as farmers usually do, but at what rate he was making profits or losses he could not satisfy himself. A similar satisfaction in the farmer's business is one of the reasons why he should keep regular accounts with his crops and field, as much as the merchant and manufacturer do in their departments of business. Without accurate accounts no farmer can tell, save by a guess-work which may be very wide of the reality, what crops, or what fields, or what system of management are paying the best or yielding the most nett profits. One of our British contemporaries has lately been directing the attention of its readers to the importance of farm book-keeping. It asks the question, Why are agriculturists an exception to others in the details of book-keeping? and in reply observes that there is no more essential branch of a farmer's education than that of being taught book-keeping, and that not only as to the every-day mercantile transactions of buying and selling, but also as to the noting the amount of produce of different fields, or the results of different systems of management, manuring, &c. It is essential more especially, to obtaining all the knowledge possible from any *experiment*, that every expenditure made on account of the crop, together with interest of land, should be noted down on one side, while on the other is put down every particle of produce of any value which the field or crop produced. By strict attention to details, the writer of the article referred to says, "his experience as a cultivator would prove the most formidable foe to prejudices which militate against his interest,—prejudices and errors in practice being almost invariably fortified from *rough guesses*, the necessary result of the absence of regular details; and this at least is one reason for the backwardness of agriculture."

In order to render farm accounts clear and accurate, one of the first things to be done is to make a plan or map of the farm, with the size of the fields marked upon it, &c. A field or crop may then have a folio to itself and all labor, manure, seed, &c., debited to it on one side, and all that it produces credited to it on the other. In Mayhew's Book-Keeping, published by Burgess, New-York, and sold at 37½ cents, may be found some forms and directions which greatly aid any one who intends to keep accounts in a more accurate manner than farmers usually do. In addition to the pecuniary advantage which would result from knowing what kinds of crops or modes of management prove to be the most profitable, there would be a *satisfaction* in being able to keep accurate accounts and in *knowing* instead of *guessing* as to profits, which would be enough to compensate any farmer for his trouble.

How to Enrich a Garden.

Messrs. Editors.—A few years ago I had occasion to occupy a new garden. It had been worn by continual cropping without manuring, till it would not produce half of a crop of any thing. I had no manures to put upon it. I could have bought open barnyard manures that had been washed and bleached through the year till most of the salts, and all of the *urine* was gone, but I thought it would not pay well. Nor could I any better afford to cultivate a garden to the halves. There was a half acre in the garden. I planted about one third of it to the white sugar beet. The remainder to corn, potatoes, peas, beans, squashes, melons, cabbages, tomatoes, onions, &c., &c. There was one thing that I could do. I had a family of five, three adults and two children, one an infant. I placed a half hogshead, convenient for receiving all the dirty slop of the family including the urine of the chambers. This was filled about once a day through the week and two or three times on Mondays. My method of applying it was this, at evening I began at one end of the garden, and with a pail and dipper, I threw it upon the hills and beds of every thing planted, till the tub was emptied. The second evening, I began where I left off the first and continued on till the tub was again emptied. So I continued till I had gone over the whole garden. I continued to repeat the same process through the entire season, or until the garden had become so matured as to need no more food. The first time going through the garden, as the seeds were not up, I used a large watering pot with a coarse nose. The second time through, I used the pail and dipper, and applied the liquid around the young plant. As the plants became large and nearly covered the ground I applied the liquid to the ground wherever it was naked.

And now for the result. I had a neighbor, Dr. C, a competitor in the gardening line that summer. His garden joined mine, the same size, and the same quality of soil. He had plenty of open barn-yard manure and plenty of time to work his garden. He often boasted of having had the best garden in the town, and thought he should still have the best, notwithstanding mine. But no sooner than the gardens were both well up, the Dr. began to show signs of suspicion that he should be beat. About the first of July he came into my garden one morning, and says, "I have come to inquire into the secret of your power over the vegetable kingdom. The rapid growth of your garden is a great mystery to me. Your garden was plowed but once, mine twice, and dragged well. Yours was run down and had no manure, mine was in better order, and besides had plenty of manure. Mine also has had a little better attention than yours, and now the first of July, yours is certainly thirty if not fifty per cent ahead of mine. Tell me what you have done to it." "Well Doctor, come with me into my woodhouse, said I. There, that tub, with the help of my good wife, contains all the secret there is about it. I have been feeding my garden just as you do your pigs." "Well, now I see what you have been doing all summer. I supposed you were watering your garden all summer, and I wondered why you should be doing that when there has been a great plenty of rain. Now I see the mystery."

That garden Messrs. Editors, had the reputation of being the most thrifty and the most productive of any garden in the county. That was my first experiment with the waste water of the family. And as that was applied to a half acre of worn out land for only a part of four months in the year, I came to the conclusion that had the whole been judiciously applied one entire year, it would have been amply sufficient to keep in a high productive order, two acres. But, in this estimate, I have not included the excrement from the privy. My opinion was then formed and has been confirmed by later experiments, that the manure from the family, would be amply sufficient to enrich as many acres for all the purposes of agriculture, as there are members in the family. And this too, exclusive of absorbants to be used. But by the judicious use of absorbants, the amount could be easily doubled or quadrupled even. And this would be the true way of saving and using the liquid. With the expense of one half ton of guano, in *permanent fixings*, any farmer could make from his house, one ton a year through several generations. It will *certainly* pay. J. L. Edgerton. *Georgia, Vt.*

Growing the Locust—Queries.

Messrs. Editors—I wish to inquire through your columns, of such as can inform me, in relation to the growing of Locust for timber.

1st. What kind is preferable, for farm timber and fuel?

2d. Where, and how, can the seed be obtained this winter?

3d. The proper time and mode of planting and cultivation?

4th. The liabilities to which they are exposed, on open prairie locations, to breakage from winds, injury from frost, insects, borers, &c.?

5th. And lastly, the general advantages and objections, to growing locust, or other quick growing timber, on westetn Prairie farms—what, if anything, is preferable to the Locust, being particular to state whether white, black or yellow locust, giving its botanical and true name, if possible.

Any one, who actually has had practical experience in the foregoing business, and knows *really* something about it, will confer an important favor on me, and many other western Prairie farmers, by replying as early as possible, so that the information may be made valuable, the coming spring.

I repeat as before, I don't want any mere idle theorizing, of which the agricultural world is already too full, but practical information from those who have or are actually growing such timber. There must be plenty of such men, in central or southern Illinois.

D. P. Powers.

Madison, Wis., Dec. 15, 1854.

The Position of Drains.

Frequent inquiries are made as to the proper position for drains, whether directly down the slope by the shortest way, or in an oblique or side direction. In the first named instance, the drainage is supposed to be most effectual, from the rapid descent of the water down the slope; but others prefer the second mode, believing the drains cut off more completely the descending currents of water in the soil, so that it cannot injure any below. Both of these plans having their advocates, we propose to examine the benefits of each, and determine which is really the best.

In order to make the matter perfectly plain, we furnish the annexed figure, (Fig. 1.) showing the position of the oblique drains, and the distance the water in the soil must travel before it reaches tho ditches; A A A A being the drains, and the dotted lines the channels of moisture, as they leach downward through the soil. The shortest descent down the sloping surface is from B to C, the drains being placed at an oblique angle of about forty-five degrees. We shall suppose these drains to be two rods apart. Very little, obviously, of the water in the soil will pass into the one next *above* it, but will nearly all flow into the one below. Then, as from *a* to *c* is two rods or 33 feet, the distance from *a* to *b* will be 47 feet, or nearly *three* rods, which is the furthest distance for the water of the soil to soak into the ditches.

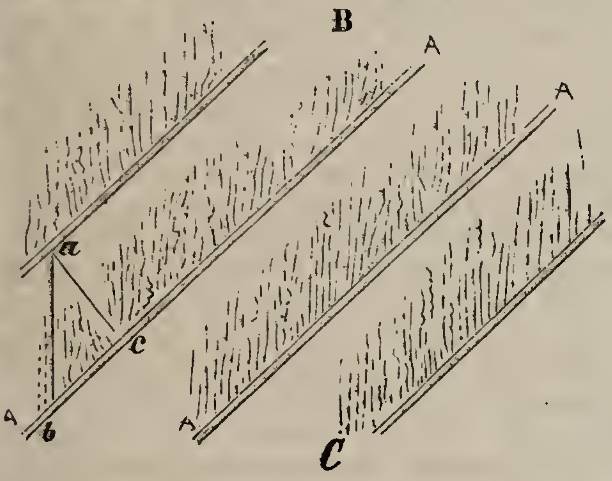

Fig. 1.

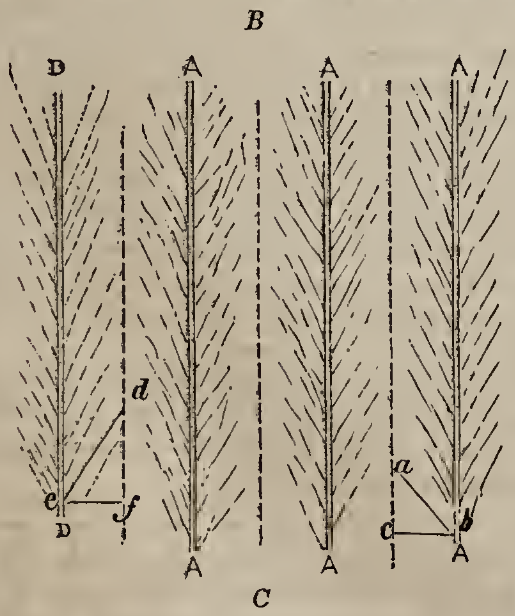

Fig. 2.

Let us now examine the other mode of laying the channels, namely, directly down hill by the shortest course.

B C, Fig. 2, is the direction of the descent, down which the drains are laid two rods asunder. These receive the water equally on both sides, the effect of each drain extending half way, or to the straight dotted lines. The direct distance is consequently but one rod as shown by *c b*; but as the moisture must flow obliquely to reach them, the distance becomes greater according to the degree of obliquity. If this obliquity is forty-five degrees (or half way between perpendicular and horizontal) as shown by the line *a b*, then the distance will be 23 feet, or only *one half* that required in tho former or oblique mode of ditching. Even if the moisture should descend so much nearer to a parallel with the ditches, as to pass sideways only half its own distance of descent, (as shown by D D,) *d e* being this distance; even in this case *d e* would be only about 37 feet, or a little over two rods, being *ten feet* less than in the former mode.

It may therefore be laid down as a safe rule, that the perpendicular drains would be as efficient at two rods apart, as the oblique ones at two thirds of this distance.

But there are other influences still more in favor of the perpendicular mode. When the drains are oblique, the water does not find so ready a passage down them, and consequently if tile is used they must be of larger size. The passage through them being somewhat obstructed by a want of descent, the water after it has filled them, tends to leak out on the lower side, (Fig. 3,) and if the subsoil is pervious, thus to add to the amount of water in the soil below, instead of draining it. But when it once enters the *perpendicular* drains, it never passes back into the soil, but escapes by the channel thus made for it.

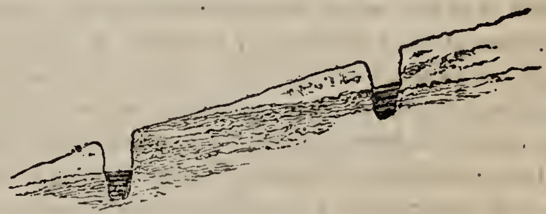

Fig. 3.

The question is sometimes asked, why the water will flow *sidewise* for reaching the perpendicular drains, and if it will find its way at all into them? The answer is water always tends (unless an obstruction is presented) to pass from a soil filled with it, to one that is dry or empty, in the same way that it will run out on all sides of a basket; and as soon as that portion nearest the ditch becomes drained, more remote portions flow in to fill the vacancy, till all escapes.

The preceding remarks apply to all ordinary instances, where a system of underdraining at regular inter-
provo to be exceptions. For example, a porous or
vals is adopted. There are a few rare cases which
gravelly hill, or top soil A, Fig. 4, may rest upon a

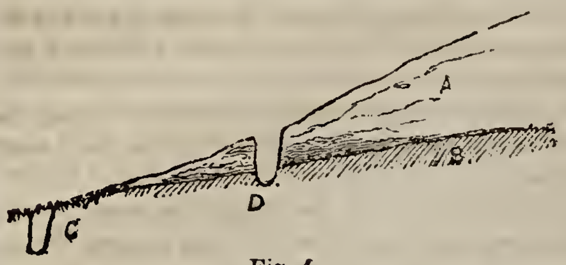

Fig. 4

water tight hard-pan subsoil; the rains which fall upon it will immediately sink down, and leave all that part of the surface dry; but running over the surface of the hard-pan, it will break out at C, and form a marsh or wet place at that point only. A drain cut obliquely or nearly horizontally at D, just at such a place that its bottom may be in the impervious hard-pan, will *prevent* the water reaching C, and prove an effectual remedy. But even these oblique drains must in most cases be only side branches to the main perpendicular drains, which should be placed at frequent intervals for the ready escape of the water.

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The Model Farm.

There are some farms carried on in a style of neatness and expense so far exceeding the means or the taste of the generality of farmers, that few can be expected to come up to them, or even copy after them with any great degree of close approximation. Still there is a pleasure in personally inspecting, or in hearing or reading a description of a farm, carried on in a superior style; and though a few only can imitate, the desire of improvement will be kindled afresh in the minds of a great many, and not a few may get a hint which they will carry into operation in some one department of their buildings or business. For the reasons just named, we think it, not only far from useless, but likely to produce here and there some very desirable results, to have occasionally a presentation made to the agricultural community, of some farm or branch of their business which is carried on in a very superior style.

Such we find in Mr. Telfer's farm, near Ayr, in Scotland. At the last meeting of the Royal Agricultural Improvement Society of Ireland, Mr. Hamilton gave his experience of a late tour in Scotland, in the course of which he visited some of the more celebrated agriculturists of that country. Among others he visited Cunning Park, the farm of Mr. Telfer, close to the town of Ayr. He informs us that this celebrated dairy farm contains only 40 Scotch acres, or about 48 English acres, flat and level, and consisting of poor sandy soil, worth very little in its natural state. Sand, however, with a mixture of vegetable matter, makes very good garden soil, and why not good field soil, being an appropriate medium for supplying water and liquid manure to the roots of plants. Pipes are laid for carrying liquid manure over a large portion of the farm, with a hydrant to about every six acres. The cow-house contains 48 cows in a double row, two cows to each stall. The floor is entirely of white flag stones, kept as clean as the floor of a kitchen, and indeed perfect order and cleanliness pervade the whole establishment. The drain behind the cattle is fitted with a perforated iron plate which lets the liquid pass off at once into the large tank, while the solid manure is carried off by shovel into the same deposit. No litter is used, but the fore part of the stalls is covered with thick cocoa-nut mats, which cost 10s. ($2.50) each. As some of these mats had been down three years, and yet seemed but little worse for wear, the expense of this substitute for litter must be very trifling. There are many windows both in the sides and roof, which can be thrown open for ventilation, or closed when flies are troublesome, having blinds of cocoa-nut fibre so ingeniously arranged that pulling a slight cord closes them all, and darkens the whole stable.

There is, also, an air channel under the floor by which fresh air is introduced, as it is usually in churches. The food is brought in by the center passage, in a large box with three wheels, which runs over the flag-stones with the greatest ease. At one end of the stable is a steam engine with apparatus for chaffing, steaming food, pumping water from the river, and forcing the liquid manure through the pipes, and the tank, which is open and surrounded by a high wall, is at the other end. The dairy-house is connected, and has everything necessary for cleanliness and the regulation of temperature, and a beauty of perfect fitness in every part. As a natural consequence of all this, it is stated that Mr. Telfer gets the highest price for his fresh butter from a London dealer, who supplies the nobility and gentry of the West End of that city. This is sufficient evidence of the superiority of his butter.

The stock kept on the farm is 48 cows, and 2 horses. The cows get about 88 lbs. of fresh cut grass *per diem*, and 30 lbs. cabbage, in the summer, with one feed a day of 6 lbs. of chaffed hay, and 2 lbs. of oil-cake, made into flour and steamed with the chaff.

In winter, grated mangel wurzels, fresh and not fermented, are substituted for the fresh cut grass.

Mr. Hamilton, who reported the observations he made during his visit to this farm, states that he thinks it proved, that by the constant application of liquid manure, as much, at least, as 25 or 30 tons of green Italian rye-grass may be raised from an English or statute acre, which would be equivalent to from 7 to 9 tons of hay. Now assuming 8¾ tons of rye-grass = to 2½ tons of hay, to be a fair crop under ordinary circumstances, then Mr. Telfer gets an increase over an ordinary crop, by means of his liquid manuring, of 4½ tons of hay, at the lowest estimate—*a no inconsiderable remuneration for extra efforts*, or *farming in a superior style.*

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Carcase and Offal.—From the same journal we copy the following table, showing the proportion of carcase and offal in 10 stone of each respectively, of five different breeds of cattle:—

	Carcase.		Offal.	
	st.	*lbs.*	*st.*	*lbs.*
Devon,	6	13	2	4½
Durham,	6	13½	2	1¼
Hereford,	5	12½	3	2
Highland,	5	6	4	4½
Cross,	4	7½	4	4½

First Year's Experiences in Farming—No. 1.

Reasons for Going to Farming—My Farm—its late Occupants—their System—Manure the Indispensable Requisite—Arrangements of Barn-Yard and Buildings for Making and Keeping this "wealth of the farmer."

It is no uncommon thing, now-a-days, for persons educated for other professions and pursuits, to enter upon the business of farming. Those who possess an instinctive love of the Country, and its pure pleasures; such as prefer the *quiet* and steadiness of rural life, to the excitements and ever changing circumstances of professional and commercial life; some who seek restoration of impaired health; and not a few who have an eye to "remunerating profits," are to be found, here and there throughout the country, forsaking their former occupations and engaging in the time-honored calling of agriculturists.

Yielding to some of these motives (not excepting the last,) I have relinquished other pursuits, and now find myself a *practical farmer*, of a year's standing.

The operations of a *year* afford many useful lessons. The recorded experience of others, has been my principal guide, and I have found those facts established by actual and repeated trials, far more reliable than any theoretical *facts*. If therefore your readers are able to deduce any valuable lesson, receive any useful suggestion, derive any encouragement, or find any stimulant to improvement, in my limited *experience* I deem it only a duty to communicate.

First then my farm. It is located about 2 miles from the center of the city of Utica, is composed of 100 acres tillable land, one third of which are the flat lands of the Mohawk Valley, and the remaining two thirds up-land, gently sloping to the northeast. The sub-soil of the latter portion is a stiff sandy clay and is over laid with about six inches of fine dark loam. It is considered a good farm, take it all in all. The products of the farm have not been such, however, as to encourage the former owners, who were two brothers.

Its late occupants. It was purchased by a relative of theirs when a forest, for ten shillings per acre, and although devised to them at his death, free of incumbrance, it did not produce enough under their joint management and culture, to defray their expenses, and when finally disposed of was subject to a considerable incumbrance. This was not owing to their extravagance or excesses of any kind, but to their system of management.

Their system. They would not adopt an evident improvement because their fathers "did not do so!" They would not plow below the coating of loam that covered the farm, because their fathers never did, and it would *poison* the land. They would never plant a tree, because "the old orchard was good enough." They would have no Durhams or Devons, but delighted in a stock of cattle that had been "raised on the farm!" They did not believe in carting manure, but often gave it away to any one who would get it out of their yard. In fact, manure was treated as an absolute *nuisance*, and they consequently sought every way to rid themselves of it. They planted and sowed the same fields, with the same crops, year after year without change. They believed "rotation of crops," a fancy of the book-farmers. By this system (if it may be called a *system*) the farm was "run down," and did not produce well. It was literally *skinned*, as the owners ought to have been. Living as they did in this day of agricultural light and skill, in this fruitful county, on a good farm near a fair market, needing no assistance to carry on their whole business, and men of fair education and intelligence on other subjects, their farming was and is to them, forever, a shame and a disgrace.

Manure. My attention was first directed to this, the most indispensable requisite in good farming, and the means of manufacturing and preserving it. I removed the barns from a wet inconvenient and much exposed situation, to a better protected and more convenient place, and arranged the sheds and out-buildings to form a barn-yard, enclosed on all sides by buildings, except a small portion towards the south. It cost two or three days work of man and team, to shape the yard—plowing and scraping from the center to the sides, until there was a gradual inclination of all sides to the center. I then picked up and drew from the fields, small stone, and paved the center, laying the stone in water-lime. In this manner, covered about one half the area of the yard, which made a water-tight, capacious and convenient *dish*, in which to keep all the yard manure. The two old barns were made alike and in the oldest style, with a cow stable on one end, a scaffold over it, and a bay on the opposite end, with a barn-floor in the middle.

I placed these barns together in their new position, joining the ends where the cow stables were. This brought the stables together, and when occupied, the cows stand facing from each other, and looking into the barn floor of each barn. Between and behind the two rows of cows, I made a gutter, leading all the liquid manure to the back of the barns. Here I excavated a large reservoir and enclosed it with a stone wall (of stones gathered from the fields) laid in water-lime and paved in the same manner as the yard. This is large enough to contain all the droppings of the cows as well as the liquid manure, and into this stercorary, it is all deposited with very little trouble. Here also I deposit old turf and muck. This is well protected by a lean-to shed, in rear of the barns. A large door in this shed affords a passage for the manure wagon, which is backed down upon a portion of the floor of the reservoir, which gradually inclines from the outside entrance to the bottom, and can be easily loaded, whatever the quantity of manure in the reservoir.

My barn-yard has no scattering dung heaps, but a large pile in the center, which is constantly increased by adding muck and all vegetable substances within my reach, and to which the manure of the horse stable and piggery is regularly carried upon the wheelbarrow. Besides receiving and retaining the wash of the yard, the liquids of the horse-stable and piggery are also drained into this *dish.*

To the manure of the hen-house, sufficient swamp muck is frequently added to prevent the escape of ammonia and to keep the house of a savory smell. The quantity of domestic guano thus made in a year, has been a very considerable item.

These are my plans for making and keeping the "wealth of the farmer." I have tried them, proved them, and can testify that they work well. Civis. *Utica, Dec.*, 1854.

P. S. I read your "*Country Gentleman,*" with great interest and profit. I cannot estimate the value it has been to me in my attempts at farming. Its hints from correspondents, its practical articles of your editorial corps, and its general matter, are all admirably adapted to improve and encourage us.

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The Greatest Enemy of Fruit Culture.

"And what is this greatest enemy?" inquires every one. "Is it the caterpillar—the canker worm—the borer—the grub—the bark-louse—the black knot—the fire blight—the yellows - the curculio?" The *caterpillar* sometimes strips whole orchards of their leaves, and for that year puts an end to the crop; but generally speaking it is not a very bad enemy, as the incipient nests are easily collected and destroyed, and the more advanced insects are instantly killed by the slightest touch of a swab dipped in coal-tar. The fire-blight is often very destructive to the pear; but when not virulent, it may be checked by prompt and vigilant free amputation; in many places it is only an occasional visitant, and in some regions of country, celebrated for large crops, (Boston for example) it has never been seen. The *borer* may be excluded from the apple by a coating on the trunk and roots in spring, of a soft mixture of tobacco water, soft soap, and flour sulphur. The *grub* in the peach is readily dug out with the point of a knife; and the yellows, although incurable when once attacking a tree, may be excluded from an orchard by planting only healthy stones and healthy trees, on a strong, rich, well cultivated soil. The *bark-louse*, in its worst appearances, is confined chiefly to one portion of country, and may, by industry, be scraped and washed off—the black knot, may in most cases be kept from the plum and morello cherry by vigilance in cutting off, if only *begun in time.* Even the *curculio,*—that prince of destroyers, causing as it does, a loss to the fruit crop annually of some millions of dollars in the aggregate, may be greatly checked in many instances, and sometimes effectually routed, by *plenty* of pigs, poultry, and other of the smaller animals,—assisted when necessary, by the daily knockings on the spread sheet. Nearly all these depredators or enemies are, besides, confined mainly to certain fruits only, as for example, the yellows and grub to the peach, the fire blight to the pear, the borer to the apple and quince, the black-knot to the plum—and the curculio in a great measure to smooth stone fruit. They do not each extend through the whole list of species, and this fact renders it much easier to meet and successfully oppose them.

But there is another enemy, greater by far than any one of these, if not than the whole list put together. This is a certain animal which the ancient philosopher singularly described as "a two-legged animal without feathers," the great English epicure Dr. Johnson, as "the only animal that cooks its victuals," and zoologists under the scientific name *Homo sapiens.* Man (under which general head *boys* also are included,) is the greatest enemy that fruit trees have to contend with. The first thing he usually does, when he procures young trees, which perhaps have been already badly chopped and mutilated at the roots, by some other individual of his species, is to crowd them into a small hole in a hard soil, which mixed with sods is thrown in among the roots, and stamped hard with the foot. They are not unfrequently choked and killed the first year by sowing grain crops about them—we have seen hundreds of trees in a single orchard smoothered to death in a season by being thrust into a thick clover meadow the first year, and where the fourth that survived did not grow a single inch. If an *insect* had done this great mischief, a general shout of war would be heard against it; but because it is committed by this same animal, *Homo sapiens,*—*sagacious man,*—it is ascribed merely to bad luck and forgotten.

But if the trees happen to survive this severe ordeal, an assault is made upon them in another shape. He "trims" them up without regard to form but a misshapen one; he tears off their bark with his whipple-tree in plowing, or breaks them down in his care to avoid injuring an adjacent hill of corn or potatoes, that has cost him just one-hundredth part of the tree; or he carelessly turns in cattle, which avoid the error of trimming *up,* by browsing them *down* to the ground. If they escape all these things, then very often violent amputations are made of large limbs, without judgment or meaning, and canker or decay finish the work with them.

Evil from this animal, however, comes in another form, not unfrequently more formidable than any of these. This is the depredation of *boys* (in which term we include all pilferers under fifty years,) who in most places in our free country, effectually deprive the *careful* cultivator of the finest part of his labor and watchfulness for years. What beautiful laws our consistent government enacts! If a man defrauds his neighbor by passing on him a counterfeit dollar bill, years in the state prison is his punishment; but if he steals the choice reward of long seasons of skill and care from the fruit garden, no one thinks even of three days in the county jail, and the injured owner, if he makes any complaint, is reported through the neighborhood as illiberal and stingy, and even some of our country papers have attempted to raise this heartless hue and cry. Let it no longer be denied that THE DOLLAR is the Alpha and Omega of the American people, when such inflictions are visited upon those who infringe its privileges, while other injuries, which money could not replace for the owner, are passed lightly over, amid jibes and jokes on the unfortunate fruit culturist, who lost his most delicious specimens.

Nothing in the whole circle of rural improvement can do more towards establishing virtuous habits in the community, and inducing a love of home and domestic life, and a distaste for dissipation, than the successful culture of the full circle of the finest fruits, so that none need go abroad for pleasures, but that every one may sit under his own vine and fruit tree. Yet we have met with many owners of a lot of land, and we have no doubt there are thousands all through the country, who are wholly deterred from setting out choice fruit trees, because they know that thieves, or "*boys*" as they are commonly termed, will have the *best*, if not the whole of the crop. What we most want is a *correct public sentiment* on this subject—and now that the number of fruit raisers is becoming larger annually, will not our horticultural papers take hold of the subject and do their duty, by frequently speaking out and arousing public attention to this widely prevalent evil? Will not "*The Horticulturist*" take the lead? Will not all our periodicals which are so largely enlisted in rural improvement, join in the work, as one of more importance than all canker-worm-troughs, fire-blight-cures, and curculio-remedies put together?

We as a people have been for several years planting out fruit trees by the million—but the great majority of them, we are confident, if not four-fifths, have been destroyed or stunted to worthlessness, by bad treatment in mal-transplanting, mutilated pruning, and the absence of al good culture—and of those who know how to manage them in the best manner, a large portion are deterred from action by the certainty of the plunderer's assaults. No wonder then, that fruit, instead of growing more abundant in market and cheaper in price, is actually becoming dearer and higher priced on an average, as the country becomes older and the population more numerous. We sincerely hope that those who have some control over public opinion, will exert their influence for a reformation.

Pulverization of the Soil.

We might select a more seasonable subject for consideration than that of the proper amelioration or pulverization of the soil we till, but it would be difficult to find one more intimately connected with the economy of agriculture or one more generally neglected. Most of our good farmers plow deep enough, but there are few who pulverize the soil sufficiently. We are urgent advocates of deep plowing, but we had rather six inches of the soil were well plowed and thoroughly worked with cultivators, harrows, rollers, &c., than have twelve inches burst up and left in a half worked, raw state. MECHI sometime since, having witnessed the working of "GIBBS' Rotary Digging Machine," enthusiastically asserted in the London *Times*, that "that old implement the plow was doomed." His sanguine expectations have not yet been realized, but the workings of this machine are such as to induce us to hope that ere long some such an implement shall be invented as will economically break up and thoroughly pulverize at one operation five or six inches of the surface soil. Such an implement would do more towards revolutionizing the present system of American agriculture than the most enthusiastic chemist ever claimed for soil analysis, or more even than MAPES claims for his Improved Superphosphate of Lime.

Dr. WELLS of Cambridge, found that the soils of the Scioto valley in Ohio, which have long been noted for their extraordinary fertility, contained a no larger proportion of the elements of plants than the comparatively sterile soils of New-England. So far as chemical composition was concerned, one soil was just as good as the other, the only difference being that the rich Scioto valley soil was composed of *finer particles* than that of Massachusetts. Now we are not to infer from this that the land of New England can be rendered as productive as that of the Scioto valley simply by good plowing and thorough working, since these could only break up the conglomerated particles of the soil and not reduce the size of the particles themselves, neither are we to anticipate that any mechanical contrivance will be discovered for grinding the soil into a fine powder; but we may safely assert that the results of Dr. WELLS, clearly indicate the direction in which we must look for any great improvement in our national agriculture.

The beneficial effects of pulverization are attributable to the increased permeability of the soil to rain and air; the oxygen, carbonic acid and ammonia of the air, have a great effect in decomposing the organic and in disintegrating the inorganic matter of the soil and rendering them available as food for plants, while it allows the rain water to act on a greater surface, and thus to dissolve out more matter from the soil. We all know that a lump of sugar is much longer in dissolving than the same amount of pulverized sugar. The principle applies in all cases. Good plowing and thorough working of the soil, therefore, loosen the soil and form a fine bed for the plants to root in; they prepare the soil in such a manner that the air, carbonic acid and ammonia can circulate freely through it,—conditions which are known to be essential to the growth of plants. The free admission of the air too, induces the liberation of carbonic acid, ammonia, &c., which in their nascent state, are known to be powerful solvents, and to have great quickening and ameliorating effects on the soil. When it is remembered that plants can take up their food only in solution, and that most soils abound in the elements of plants lying in an inert, insoluble condition, it will not be difficult to account for many of the surprising results witnessed from good tillage alone. A good plowing with the frequent use of the cultivator, harrow and roller, are frequently tantamount in effect to a liberal dressing of manure. There is this difference, however, and it must not be overlooked, the former simply renders the fertilizing matter already in the soil available, while the latter supplies the same matter from extraneous sources; and there is danger of pushing the principle of good tillage too far, for however fertile a soil may be, the constant removal of crops, without the return of any manure, must sooner or later impoverish the soil. For our own part, however, we anticipate little danger in this direction; farmers who have enterprise and knowledge sufficient to adopt improved modes of *tillage*, are not likely to neglect the manufacture, preservation and application of manure.

We refer to the subject of the thorough pulverization of the soil at this time, principally to urge upon our readers the importance of possessing proper implements for the economical performance of this important branch of farm labor. The comparative leisure of the winter months on a farm, not only affords a good opportunity for investigating the laws of tillage, but also for getting ready implements for reducing to practice the knowledge thus obtained. We think "CROSSKILL'S Patent Clod Crusher," the best implement at present known for pulverizing the soil; but if we cannot have this implement there is no reason why every farmer should not have at least a good wooden roller. If you have not one already, kind reader, be sure you get one before spring.

Mechanics Turning Farmers.

"A few Mechanics" at Worcester, Mass, ask for advice on the subject of relinquishing their present employment, moving west, and engaging in Farming The "hard times" have thrown them out of employment, and they have each a small amount of capital, varying from $700 to $1400. Some of them have had no experience in agriculture, and they wish to know if they can probably "get a living," and "make it pay" as well at farming, as at their city trades at two dollars a day.

It is next to impossible to give any definite advice on this subject. Some of the best farmers we ever knew, were brought up mechanics, but carrying their regular business habits into their farming, with a consciousness that they had *all to learn*, they applied energetically to the best sources of information, and soon outstripped their more conceited neighbors, who knew too much about their business to learn any thing. On the other hand, we have known perfect failures with others who had made similar attempts.

The best *general* answer we can give to all inquiries whether any particular pursuit is a good and profitable one, is, "Success does not depend on the kind of business; it depends on THE MAN." There are some mechanics, who, unaccustomed to farm labor, would exceedingly dislike its irregular drudgery, as well as its uncertain results from the variations of seasons; there are others who would soon become fascinated with all its operations, and with everything connected with rural improvement, and learning by a few years experience to turn everything to account, would make farming profitable. Our opinion is, that most of those accustomed to regular mechanical employment only, with a capital of only about one thousand dollars, would find it difficult to buy a farm with buildings, stock it with animals, furnish wagons, carts, and implements generally, and buy food until a return is made in crops. We would never advise such persons to buy *new* lands, but whether they settle west or east, to procure a place, even if quite small, already under cultivation, and with at least some buildings.

It will be some time before the *most skilful* will receive an amount equal to *two dollars* a day; and we would therefore advise all mechanics, not already well versed in the practical operations of farming, to endeavor to retain for themselves, at some wages, mechanical employment during the most leisure portion of the year—to begin in a small way, to avoid running into debt, and to *feel their way* before engaging in any considerable expenditures.

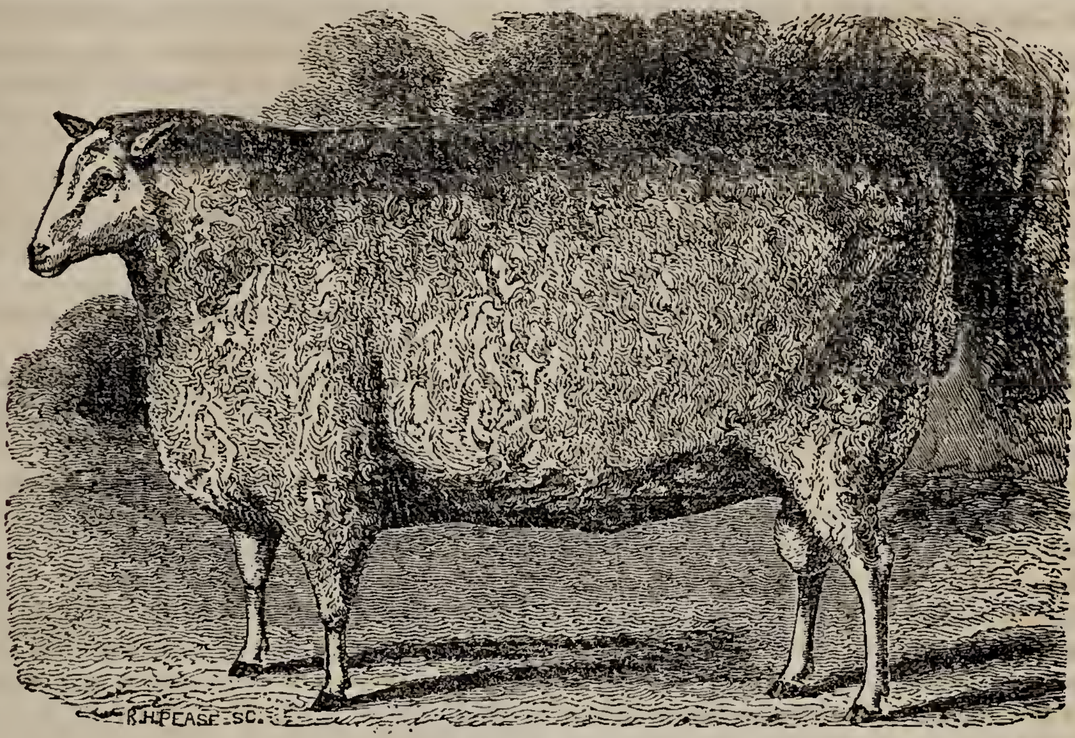
With regard to the question, "Where would be the best place to locate?" we answer, in any of the states west of New England, where the climate is not greatly dissimilar, and where there is a good fertile soil, and healthy air. In the more remote places, land is cheaper, but the advantage is nearly balanced by distance from market, and lower prices.

Keep only the Best Stock.

The opinion is gaining ground that, in the Eastern States especially, farmers can afford to keep none but the best stock. It costs in this vicinity at least $50 to keep a horse well through the year, and as much to keep a poor animal as a good one. Who that thinks at all on the subject, can fail to be convinced that it is better economy to keep a span of well formed, active and powerful horses, even should they cost $300, than a pair of long-legged, lightbodied, broken-down stagers, even could they be obtained for nothing? So it is with cows. It is not easy to estimate accurately the cost of keeping cows,—in this neighborhood it is not far from $35 per annum—but we may safely aver that little profit is made except on the best animals.

The profit of pork making except in the great corn growing states of the west, is notoriously small, and this year it has been less than usual. We will not say that much money can be made here in feeding corn, even to a good Suffolk or Berkshire pig, but if it will not pay to fatten a well-bred hog, it certainly cannot be profitable to attempt to fatten the miserable race of pigs commonly found in most barn-yards.

The same is true of sheep. The profit on sheep the past year, especially on such as are kept principally for their wool, has been quite small—some good farmers think it has been on the wrong side of the ledger. Many are rushing out of the business, selling their flocks at a great sacrifice. It would be far better policy to go carefully through the flock, and select out the comparatively worthless animals. Many flocks would in this way be reduced one-half, and by keeping them better, and using the proper means to improve the breed, much more profit would be obtained for the food consumed. It might be well, too, in many cases, to get a coarser wooled, mutton breed of sheep But this of course depends on the locality, the price of mutton, &c. At all events, whether sheep are kept for



Leicester Ram.

The above is a portrait of a yearling ram, bred by Mr. S. Bennett, Bedfordshire, England, to which a prize of 30 sovereigns was awarded by the Royal Ag. Society of England.

wool or mutton, the most profit will be realized from the best bred animals.

What are, and what are not, well bred animals, is a disputed point which it is not our purpose here to discuss. Could we see farmers fully realizing the well established fact, that carefully bred animals are always, in the aggregate, much more profitable than those which are chance bred, we should have higher anticipations respecting the progresss of American Agriculture.

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Cure for Foot Rot.

Messrs. Editors—A simple and effectual cure for the *foot rot* in sheep, consists in a mixture of 1 part oil of vitriol, and 4 parts water.

Provide a sharp jack-knife, and a small brush. The operation consists in paring the diseased hoof, so that every part that is matterated shall be exposed, and then wash it with the vitriol and water.

Years ago, when the Saxon sheep fever was raging, my flock had the disease direct from Saxony, and from its operation, no one would doubt its being genuine. Nearly two years were consumed with various remedies, which served to save the flock, but all the remedies were not effectual to make them stay cured, until a friend living with a flock-master near Boston, kindly furnished the above remedy.

I had a flock of over 200 sheep, in a hill pasture, affected with the disease. I procured help that could be relied upon to do the work well, built a small yard in the corner of the lot, sufficient to hold the sheep, and carefully examined every one, and applied the above remedy to all the diseased ones, twice in the week for three weeks. The cure was effectual, as I have not had any trouble since.

The secret of success consists in doing the work *thoroughly*. The least particle of matter left unexposed in paring the hoof, will be seed enough to perpetuate the disease. Nine flocks of sheep in my immediate neighborhood were successfully treated in the same way. Orrin Smith. *Middlefield, Mass., December* 25, 1854.

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Grubs in the Heads of Sheep.

Messrs. Editors—I notice in the *Country Gentleman*, some remarks upon the grub in the head of sheep. I will give you a little of my experience in this matter. I moved from your state seven years ago, and brought with me 8 Leicestershire sheep. They prospered well with me. They were kept in the prairie grass in spring and summer, and in fall and winter in the corn as it grew in the field. With this treatment, my sheep are fat in winter. In the seven years, I have lost ten or twelve wiih the grub in the head. I found it to be so, by dissecting the head; found one grub an inch long, and others of various smaller sizes. I carefully experimented upon them, and found that tobacco juice killed them in half a minute. After that I used strong tobacco juice, syringing it into the head' and it cured long standing cases every time. A. K. Barrett. *Magnolia, Wis.*

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Mr. Jewett, of Weybridge so well known as the importer of blood Stock, has just made one of the largest sales ever made in the county. He has sold to Charles Newman, Esq., of Brooklyn, N. Y., French Merino Sheep to the value of $15,000. This, added to the former sales of Mr. Jewett this year, amounts to $28,400! a good business for one season.—*Vt. Patriot.*

"To Improve the Mind and the Soil."

This has been the motto and the object of this publication from its commencement. Is there any connection between them, or are they entirely distinct and separate objects? We think there is a close connection between the two, which it might benefit many to think of, and to allow it some more influence on their plans and proceedings.

The connection between improvement of the mind and improvement of the soil, or of the condition of those who cultivate it, which is of most importance, is that which consists in the increased fitness for a successful prosecution of his employment, which springs necessarily from sharpening, strengthening and cultivating the mental faculties of the farmer. It seems a truth almost self-evident—one at least which receives almost daily confirmation—that whatever calls forth the powers of the mind into vigorous and well-regulated exercise fits that person, in a greater or less degree, for more accurate and keen observation and for more correct and logical and practical thinking, in whatever department of the business of life he may be engaged.

The young men whose minds have been most active at school or in home studies, are usually found to be the most intelligent, sagacious and successful, in whatever they may afterwards employ themselves. From a torpid and inactive mind, when do we ever obtain any valuable observations, discoveries or reflections? The same general truth holds good as to the cultivators of the soil. It is from those whom exercise and discipline of the mind have made intelligent, inquiring, sagacious, and logical, that we receive reliable observations, and well founded arguments, opinions and inferences. It is from such that we receive suggestions and proposals of improved methods of culture. While the torpid and inactive mind contents itself to walk in the steps of its ancestors and to do as the world has done for ages, the educated and 'improved' mind is quick to detect the faults and imperfections which belong to many old customs and practices, and to devise new and better methods of attaining the ends of agricultural labor.

Durability of Unburnt Brick, &c.

A correspondent at Tipton, Iowa, inquires for information respecting the durability of buildings made of unburnt brick—and the kind of plastering for the outside—whether the walls need be hollow—and the cost. He also wishes to know how to make cement roof, and its cost.

A well made unburnt brick house, on a firm, dry, stone foundation, with a complete covering of *cement*, will last for ages. Uncemented, the weather gradually wears it away; and water leaking from the roof, or coming up from the earth below, will soon destroy it.

The price is usually regarded as much less than burned brick, as the bricks are more rapidly made, and burning is saved; and the bricks being much larger and as thick as the whole walls, are laid more cheaply and rapidly. The thickness of the brick, and their non-conducting properties, obviate the necessity of making them *hollow*. Notwithstanding all these advantages, this mode of building is falling into disuse, doubtless for some substantial reasons, among which is probably the difficulty of having every part *done well*, and especially the great difficulty of securing good cement, so essential to success. We should however be glad to have the views and experience of those who are familiar with this mode of building.

The following particulars for making cement, we copy from Downing's Cottage Residences.

In making the cement, choose a hydraulic lime that has been thoroughly tested, and is known to be well adapted to resist the weather, *in the air* as well as under water, and let it be perfectly fresh, as it will be nearly worthless if it has been long prepared, unless it has been kept in entirely air-tight vessels. The very best and purest lime should also be selected,—of the greatest tenacity in mortar, and such as will slacken equally throughout. Especial pains should also be taken to procure sharp angular sand, which, if not perfectly clean, must be freed from any admixture of earthy particles, by repeated washings. Let the lime be thoroughly slaked, and a good mortar be made in sufficient quantity for the whole of the work, of the lime and sand. When the masons are ready for plastering, open one of the casks of cement, and mix the latter in the proportion of one third to two thirds of the mortar, making a hod of the mixture at a time, as it would otherwise partially set before it could be used. Only one coat of cement should ever be put on, as it will then form one homogenous mass with the wall. In finishing the surface, *float it off* as smoothly as possible, and mark it off in courses to resemble stone, coloring it while the cement is yet only partially dry, so that the coloring matter may set with the cement.

We do not know the best method of making composition roofs, but understand it is an art that requires much experience as well as knowledge. Can any of our correspondents give the desired information?

Singular Circumstance.

MESSRS. EDITORS—I have a strange fact to state which came under my notice in the town of Moscow this state. I observed in June last growing upon the farm of N. H. Miller, a very superior lot of clover, and was much surprised to learn the field had not been seeded for five or six years, during which time, it had been mowed twice and cropped twice with wheat.

This is something very unusual, as clover rarely does well after the second season.

Who can account for this bountiful crop of clover without seed or plaster for six years. The soil is a gravelly loam, similar to much of the soil in Monroe and Livingston counties, N. Y.

Allow me to state another little fact, which may be something new to many of your readers. While opening a pumpkin yesterday which had been carefully carried from the field to the cellar, we observed many of the seeds were sprouted, with long turning roots, and also from one seed a couple of beautiful *green* leaves. Does not this do away with the theory that light is absolutely necessary for plants to produce color. J. W. DICKINSON. *Hillsdale, Mich., Dec.* 2, 1854.

On Making and Saving Manure.

Messrs. Editors—I read with a very deep interest, the communication from T. K. in the Country Gentleman of Dec. 7, on making and using manures. Not because it presented new principles or discussed new theories, for that is not what the farming public the most need just now, but because it did contain the very things they do the most need—line upon line, precept upon precept.

Farmers can never be too much nor too earnestly urged to increase their manure heap. The one great question with every farmer should be, not the price of guano, nor super-phosphate, nor poudrette, but how can I, on my own farm and with the least expense, make the most manure? One interesting feature in T. K.'s communication, is the encouragement it gives to home manufacture, the development and use of home resources.

But to the first item of advice in T. K.'s communication, I take exceptions. To every farmer that inquires, shall I go to the forests and get the leaves for my compost? I answer unhesitatingly, *touch* not a *leaf* in your *wood-lands*. The leaves are all needed there for three special purposes. To keep the ground *moist* in summer, *warm* in winter, and lastly to furnish food for the growing timber. I advise the farmer to *mulch* the wood-lands rather than remove a *single leaf*. My nearest neighbor has a valuable wood lot, a part of which lies high and so exposed, that every leaf is blown off by the autumn winds. The drouth of last summer killed all the valuable timber on that part from which the leaves were blown, while they remain uninjured on that part covered with leaves. If such wood-lands are worth saving, then it will pay to mulch them.

There is one other item of advice to which I take no exceptions, and yet I can not see the use of it. It is that which relates to the cistern and pump for the urine. I charge every farmer to save every ounce of urine, as well that from the family as from his animals, but to do it by the use of absorbents that are the most worthless for manure in their crude state, but, when used to absorb either the dirty slop from the family or the urine, are converted into the richest elements of fertility. And I am sure that if every farmer would carry out the advice of T. K. relative to collecting and using absorbents, (except the leaves of the forests) he would have no need of pumps nor cisterns about his yards.

For the benefit of such as are inquiring for modes and means, I will describe some of the Vermont barns or stables rather. The first can be found in West Pawlet, built and owned by Mr. Bardwell. His stable is built with an open cellar, running through the entire length of it, of sufficient width to admit the passage of a team through it, and walled on the sides and bottom, water tight. The stalls for the horses and cattle are arranged on both sides of the cellar, with a floor, water tight, descending towards the cellar. Into this cellar all the bedding of the animals, with all their excrement, as well the liquid as the solid, are thrown together with other absorbents, sufficient to take up all the urine. To this cellar, the store hogs are admitted and perform an important work in manure making. Mr. B. has the means in such a cellar, to make any amount of manure he may desire. Should he wish to use more absorbents than would be needed to take up the urine, he can supply water as much as needed, and let the hogs mix with the solid. In such a case, the farmer will have no need of pumps or cisterns. In my next, I will describe other modes of constructing stables practiced here in Vermont. J. L. Edgerton.

Georgia, Vt., Dec. 22, 1854.

Cultivation of the Potato.

Messrs. Editors—I would like to obtain through your paper, some information in regard to the production of the potato, from persons extensively engaged in raising it for the Albany and New-York markets. There are farmers in the southern part of this state, I am informed, who frequently raise ten, twenty, and even forty acres of potatoes in a season; and it is fair to presume that those who are thus extensively engaged in the business, will, from superior attention to the most approved mode of raising and harvesting their crops, have acquired possession of many little items of information and experience, which others, who have bestowed less attention upon the subject, are ignorant of.

I say *little items*, for these ordinarily constitute no small part of the difference that exists in one man's performance of a piece of work, over that of another; and it is usually the case that strict attention to matters, which, in the abstract appear trivial, produces the most astonishing results.

So far as my knowledge of potato culture extends, there is entire want of uniformity in every farming community; and not only so, but there is far more diversity of opinion and practice in the production of this root, than in the production of any other kind of crop. In preparing a piece of turf ground of heavy quality, one man waits till late in the spring, and then throws it into ridges of two furrows to the ridge, and deposits his seed between the folded clods; while another would certainly have plowed such ground during the preceding autumn, and previous to planting would have cross-plowed, harrowed and thoroughly pulverized it. One preserves his seed for planting, by keeping it fresh in the earth till it is wanted for use, while another smokes and dries it almost to a crisp. One plants small tubers, another large ones, and others again prefer halves, quarters or single eyes. With one, science has demonstrated that every perfect tuber has a head and face, and that it should be deposited in the ground with great care, and in a certain position; with another, science is a humbug, and all such care is nonsense.

That mysterious planet, the moon, looks down with a smiling face, and proffers her bountiful gifts upon her faithful votaries; while others plant just when they get ready, regardless of her favor or frown. And the different kinds of potatoes that lay claim to superiority in point of some valuable quality, it would puzzle any modest man to determine. One keeps up the old practice of planting in hills full four feet apart, and would regard any deviation from this ancestral usage, with something like the same abhorrence that he would the demolition of an old school-house and the erection of a new one, after looking downward and consulting the feelings of his pocket.

Another, General Barnum, for instance, of Vermont, would prefer planting in drills only twelve inches apart, leaving a space of only one foot between the potatoes in the drill. One makes use of the hoe in planting, another the plow, while a third pays his respects to the custom of the aborigines, and deposits the seed in a hole made with a pointed stick.

And as to manuring, why, a little more than a year since, I paid a dollar and a half to a lecturer on agriculture, for telling me how to raise crops without manure; and I have since paid two dollars to another lecturer for explaining the mysteries of Comstocking and the benefits of high cultivation. Cheap enough! There is no kind of manure, or mode of application that has not its advocates.

As to after-culture, some believe in hoeing once, some twice and some three times, while others do not hoe at all. Some make high hills, some low, some flat, some sharp.

Some do all their hilling at first hoeing, others reserve it for the last.

In harvesting, there are few crops that accommodate such a diversity of implements, so differently applied for accomplishing the same result. Now all these different modes of selecting and preserving the seed—of manuring and cultivating the soil, and of harvesting and preserving the crop, indicate an unsettled state of opinion in regard to the production and general management of the potato, which is probably without a parallel in the production and disposal of any other crop. And why all this diversity? Is it because the potato is perfectly adapted to all kinds of treatment, and that any kind of cultivation is equally suitable and judicious? Or is this lack of uniformity owing to a want of thought, of study, and of general knowledge in regard to the utility and feasibility of one mode of operation over another?

With the mass of farmers in this country, system, in the production of the potato, is by no means the order of the day. If the time ever comes, when their practice shall be more consistent with general rules, it must be brought about chiefly through the instrumentality of thinking, reading, practical, matter-of-fact men.

It is the practice and experience of *such* men, that I solicit through your paper. C. Blakely. *Bristol,*

We hope Judge Osborne, or some of the other large potato growers on the Hudson, will give us their experience in their culture.

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Shrinking of Flannel.—Enclose new flannel in a bag; put it into a boiler with cold water; heat and boil it. It will never shrink any more after this operation, and should then be made up into garments.

Value of Shelter for Sheep.

A correspondent of the *Ohio Farmer*, Mr. E. Cattell of Harrisville, Harrison Co., Ohio, has tried keeping sheep both with and without shelter, and has come to the conclusion *that it takes from half a bushel to a bushel more corn* to winter a sheep without than with shelter, and asks: "would it not be well for farmers generally to make some temporary shelter for this winter, and thus save their feed?" We are satisfied that it would. Even *temporary* shelter is better than none at all, but *permanent* sheep sheds, in most places can be erected so cheaply that few farmers have any excuse for being without them. Mr C. cuts all his fodder by horse power in the fall and stows it away in the barn. This enables him to feed it to much better advantage under shelter, but he does not find as much advantage from the practice as from sheltering stock.

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Lincolnshire Farming.

It is not many years since the county of Lincolnshire in England, was what we should term a swamp. Underdraining and other processes of modern agriculture have converted it into one of the most productive counties in Great Britain. So much so, that it is usually spoken of as the "Garden of England." Mr. Wm. Fowler of East Kirkby, Lincolnshire, writes us that land has recently changed hands there for $550 per acre, and grass land for feeding cattle rents for $25 per acre. Farms are quite large—from one to two thousand acres. They are managed on the four-course system—one fourth clover and seeds, one fourth fallow or turnips, and two fourths wheat. The rent of such farms averages from $5 to $7 per acre. They are in a very high state of cultivation.

Mr. Fowler remarks: "A great deal is said about artificial manures, both in England and America, but if farmers would pay more attention to their farm-yard manure, make tanks for the liquid, and use more linseed cake, they need not expend so much money in buying the trash from Saldanha Bay, the scrapings of the Ichabo sands, &c. Broken bones dissolved in sulphuric acid is a first rate manure for *turnips*, in this country, say four bushels per acre dissolved in 100 lbs. of acid, and mixed with, ashes, &c.* I have known very good crops of turnips grown with this dressing alone, but farm-yard manure is the main-spring of good agriculture.

Linseed cake is used to a great extent. "One of my neighbors has bought sixty tons this year. It is now worth £13 10s. ($65) per ton We generally get paid in the stock, and the manure is much increased in

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* Mr. Fowler refers to coal ashes, which are commonly used in England for mixing with guano, superphosphate and other artificial manures. Some of our best agricultural writers have thoughtlessly recommended the same practice in this country, forgetting that "ashes" here would be understood as *unleached wood ashes*. Indeed there are those who have recommended unleached wood ashes to be mixed with guano and superphosphate of lime, than which nothing could be more injurious, since they would liberate the ammonia of guano, and convert the soluble bi-phosphate of lime of the superphosphate, into the insoluble phosphate of lime, and render the mixtures comparatively valueless.

"value." Beef is worth from fourteen to sixteen cents per lb. The past summer in England, as in this country, has been one of extreme drouth, and all sorts of fodder and feed are very scarce and high. Mr. F. says, "Skirving's Swede turnips are making from £8 to £10 ($40 to $50) per acre." Though this is considered a very high price in England, a good crop of Skirving's ruta baga would sell for much more money in this country.

We shall be pleased to hear from Mr. Fowler frequently.

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Farm Hedges—No. 2.

Messrs. Editors—The ground being in a fit state to receive the plants, we will discuss their preparation, &c. The plants when obtained from the nursery, should be sorted, if not done before, keeping all large and small plants in separate parcels, and avoid mixing in planting as much as possible. Trim the roots, cutting off all scraggy roots to facilitate planting, and cut off the head of the plant about one inch above the ground after planting. I cut the plant before putting it in the ground, by taking a handful of plants by the roots and cutting them off at one blow with a sharp hook or hatchet on a block, about two inches above the collar. I consider from experience, that a hedge trimmed at time of planting, to have more than two seasons benefit over one trimmed or cut down the season after planting.

To obtain an ever growing hedge, I recommend small plants, as there is less failure in their taking root than with large ones, unless put in by an experienced hand, and though plenty profess to know all about it, I have never met with more than one or two that could pass for such on trial. After the roots are planted, attention must be paid that nothing be allowed to trespass on them whereby the tender buds may be broken. Dogs, cats and poultry, are fully as detrimental to making a good hedge, if allowed to pass and repass where the buds are about to sprout, as hogs would be in a corn or potato field in securing a profitable crop. Nothing should be allowed to pass across the hedge the first year or two whilst in sap, if you would secure a good hedge. To guard the tender shoots, I have found it beneficial to stretch a wire no. 12, a few inches above the ground, allowing the plant to grow around it, and if another be put two feet or more from the ground it would be a further security against trespassers.

These directions I have given for an ornamental hedge. For farm hedges, it would be needless to cut down—the object in farm or line hedge, being a heavy and strong growth in the most expeditious manner. To effect this, the plants should be allowed to grow, unpruned, until fit for plashing—for cutting or trimming weakens the plant and retards its growth more than persons imagine. I have plants that are seven years old, that are six times the diameter of others that are ten years, and in height the difference is as three to one, and all owing to occasional trimming or pruning

W. M. Beauchamp. *Skaneateles, Dec.*, 1854.

Curing Pork and Hams.

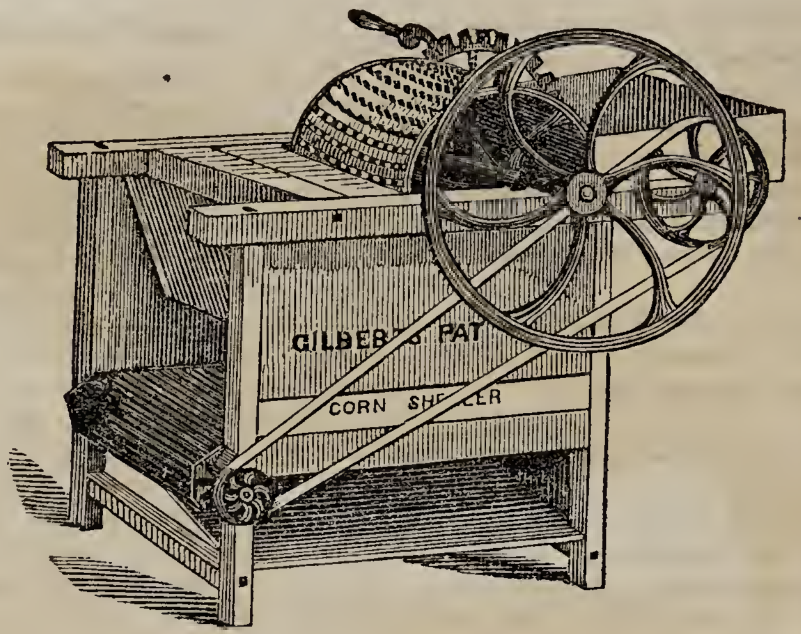
You will do me a great favor by giving me your views as to the best plan of putting up pork and curing hams, *for family use*, in your next number. J. C. P.

This request, we fear, has come too late to be of immediate use to our correspondent, who has not had, as he informs us, long experience in rural economy.

Packing down and preserving pork, is a very simple process—the more simple the operation the better, provided every thing is done in the best and most perfect manner. Cut the pieces in such a form that all may be of the same breadth, so that when packed in the barrel or tub *on edge*, they may form a layer with an even or smooth surface at the top. Before putting in the first layer, spread half an inch of salt in the bottom of the barrel if the pieces are small, and an inch if they are large. For a moderate sized family, small pieces will be found most convenient, each piece being easily taken out for a dinner, without cutting. When the first layer is completed, which should be made as close and compact as possible, then spread another similar layer of salt over it, and make another layer of pork on this, and so on till the barrel is filled, or till the pork is all packed down. In two or three days, pour on *saturated* pure brine, till all the interstices are filled, and the pork is covered with it. If the pork has been closely and neatly packed, a very few quarts of brine will be enough for a barrel. Let a cross-bar frame be laid on the pork, with a heavy weight on this, to keep it constantly under the brine, and no further care is necessary, except to keep the pork barrel in as *cool a cellar as possible*, especially in summer.

To cure hams, place them in a tub or barrel, and without applying any dry salt, pour over them at once, pure saturated brine, precisely such as is used for pouring on the pork barrel, enough to cover them entirely. After remaining thus two or three days, take them out and place them on a plank table, and rub over them the following mixture:—1 quart of molasses, one fourth of a pound of *pulverized* salt petre, and enough salt to form a thin paste or semi-fluid mass. Rub this on the meat-side of the ham every morning for five days, and then hang them up in the smoke-house. Cobs are said to be the best for creating a smoke, but in the absence of these, we have always used hickory or maple chips or wood. Hams from *large* hogs may need a longer time in the brine, and more frequent rubbings with the mixture. ☞ It is absolutely necessary, in order that hams may keep in warm weather, that the flat bone be removed which covers the smooth hemispherical bone, before they are placed in brine.

There is no better way to protect hams from the fly and all external harm, than to sew them up in cheap cotton cloth, and then carefully whitewash these all over, so that the lime may effectually close up every pore or opening by which an insect can enter. Packing in dry ashes, or in pulverized charcoal, also excludes the fly, but in this case they require a box or tub to pack them in, which is cumbersome, and they are not so easily and conveniently accessible, as when hanging up in their sack coverings.



Gilbert's Corn Sheller and Separator.

We have recently examined one of Gilbert's Corn Shellers, and were much pleased with its construction, and the ease and rapidity with which it shelled the corn. It is a spiked or toothed cylinder, working over a concave having similar projections. Such machines are considered stronger and less liable to get out of repair, than those which revolve in a vertical direction; but they have hitherto been objected to on account of breaking up the cob and corn. Mr. Gilbert claims to have obviated this difficulty by making the spike entirely flat on that surface which strikes the corn, and by this means it is said the corn is removed from the cob without injury. The spikes are cast in spiral lines around, and in curved lines along, the cylinder, so that it is impossible for the cob to pass through without rolling parallel with the axis of the cylinder. The concave is made of sections of two inches wide each, each section resting on a strong steel spring, while the entire concave supported at one end by two strong bolts, can be raised or lowered as the size of the corn may require.

Mr. G. asserts that this machine will shell more corn than any other sheller, that it does not break the cob or injure the corn, that it will deliver the corn altogether separate from the delivery of the cobs, and that, though worked easily and conveniently by hand, it can be attached to a horse-power at an expense not exceeding fifty cents, and that when so attached to a horse power, it will shell at least 50 bushels per hour. The Shellers are of two sizes, and are manufactured in this city by Deering & Dickson. Price $17 and $20.

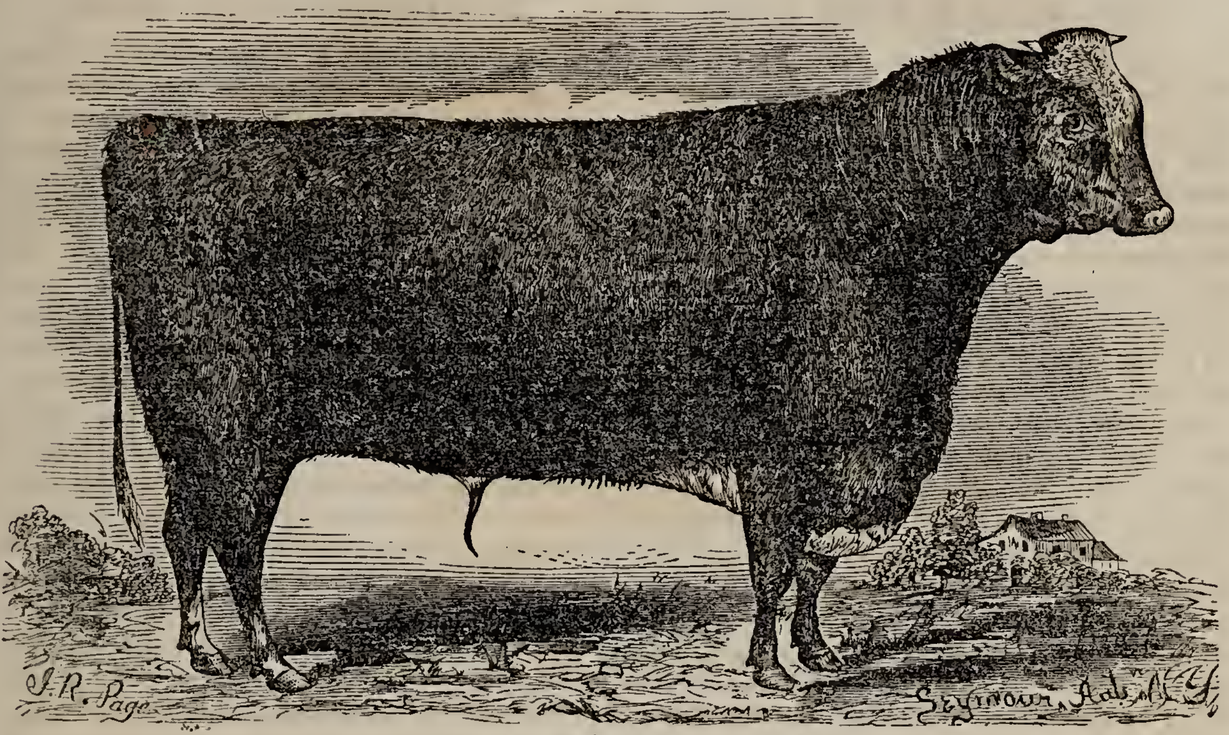
Water-Drill for Artificial Manure.

Superphosphate of Lime is used to a great extent in England as a manure for turnips, ruta bagas, mangel wurzels and other root crops. When sown broadcast it has very little influence on the crop, but when *drilled with the seed*, its effects are often times astonishing. Philip Pusey and some others have shown, too, that when the superphosphate is dissolved in water and applied in the seed drills in a liquid form, the effect is still more beneficial. Alfred S. Ruston, in the London *Farmer's Magazine*, gives the results of some carefully conducted experiments on the subject. There were seven separate experiments made, but as the results agree pretty closely we select one as a sample of the whole.

Three plots were dressed with eleven loads of barnyard manure per acre, thrown into ridges, and sown with mangel wurzels April 17th. The first plot received no artificial manure. The second 112 lbs. Lawes' Superphosphate of Lime per acre, drilled in *dry*, and the third plot 112 lbs. Lawes' Superphosphate of Lime drilled in a *liquid state* with Chandler's water-drill. The crops were weighed Oct. 4th. The first plot yielded per acre 8 tons 15 cwt; the second 13 tons 15 cwt; and the third 17 tons 7 cwt. In other words, 112 lbs. of superphosphate per acre, drilled in dry, gave an increase of 5 tons, and the same quantity applied in a liquid state an increase of 8 tons 12 cwt. per acre. The cost of the superphosphate was $1.80 per acre. This is a good result, although it is usually found that superphosphate has a more marked effect on turnips than on ruta bagas, and even still more than on mangel wurzel.

The above yield will appear small to those who are frequently reading of crops of 1,500 to 2,000 bushels per acre. The great drouth of last year, doubtless, materially injured the crop, especially where no superphosphate was applied. But as the weather in England last summer approximated more closely to what it usually is in this country, the experiment may be looked upon as pretty correctly indicating what would be the effect of an application of *good* superphosphate of lime, in a dry and in a liquid state, to mangel wurzels in this climate.

Dost thou love life? then do not squander time, for that is the stuff life is made of.



Short Horn Bull Calf Red Jacket.

Owned and bred by Col. J. M. SHERWOOD of Auburn, to which was awarded the second prize at the late State Fair at New-York. Calved Nov. 3, 1853. Got by 3d Duke of Cambridge, 5941—Dam Red Rose 2d, bred by J. Stevenson, Durham, England, of his Princess' family, by Napier, 6237.——Tube Rose, by South Durham, 5281 —— Rose Ann, by Belerophon, 3119. —— Rosette, by Belvidere, 1706. ——Red Rose, by Waterloo, 2816, Moss Rose, by Barron, 58. —— Angelina, by Phenomenon, 491. —— Anna Boleyn. by Favorite, 252. —— Princess, by Favorite, 252. ——(Bred by R. Collins,) by Favorite, 252. —— by Hubbuck, 319. —— by Snoden's Bull, 612. —— by Masterman's Bull, 422. —— by Harrison's Bull, 669.

Good Butter Cows in Ohio.

MESSRS. EDITORS—Having frequently read in the columns of the "COUNTRY GENTLEMAN," accounts of remarkable cows, I will endeavor to convince you that all of the good cows do not graze east of the mountains. Our Hamilton Co. Agricultural Society, has awarded several premiums to ED. R. GLENN, for the largest yield of butter from a single cow, to be fed on grass alone. She obtained the premium three successive years—the certified yield each time being above 16 lbs., and once, in five weeks, she made 81 lbs. of butter.

On the first of May 1852, I purchased three cows of one of our neighbors at apparently a very high price; but to which I was reconciled by a warantee, that one of them should make during the first week, 10 lbs. of butter.

To test the warantee and as a matter of curiosity we carefully measured her milk, kept it separate, and churned the cream in a hand churn. The result was 210 qts. of milk, which yielded 14 lbs. 2 oz. butter. The greatest yield on any one day was 32 qts. of milk. She was a very "Large Red" (her name) cow of native breed, but bore the outward appearance of a deep milker.

Though some of your correspondents have given statements of cows which have exceeded the yield of ours, I embrace this opportunity to throw down the gauntlet as to two years produce of a dairy of 16 and 17 cows. I will premise that the years '51 and '52 were very dry, that the cows were of native stock, selected for their milking properties alone, without regard to size, color, or breed,—were from three to ten years of age, and were kept as a regular dairy for profit and not for premiums. The statement includes all the butter, but does not make any allowance for the cream and fresh milk used by a family averaging 14 persons.

In 1851, 16 cows made 3137 lbs. of butter, or 196 lbs each.The butter sold for $881,90 or $55,12 per cow.

In 1852, 17 cows made 3312 lbs. of butter, or 195 lbs. each. The butter sold for $876,57, or $51, 56 per cow. ALEXANDER NEAVE. *Springdale, Ohio, January* 1, 1855.

Mulching Trees.

MESSRS EDITORS—In the spring of the year 1854, I planted some young apple trees—in doing which, the man who dug them up, cut their roots quite too short. In order to preserve them against the effects of drouth, nothing ordinarily used for mulching being convenient, I threw around them a mound of earth about thirty inches over and ten inches high, and drove around each of them a row of short stakes to prevent the access of hogs. This answered the purpose most effectually. This mode of mulching also supports the tree against the effects of wind, and will be found very useful to persons planting young orchards. When the trees are well rooted, the mound may be gradually removed. H. J. CANFIELD. *Canfield, O.*

Cultivation of the Yellow Locust.

For the information of D. P. Powers of Madison, Wis., I will undertake to answer his inquiries respecting the growing of locust timber. I believe I "really know something about it," having sown the seed in three different localities, and brought them to a profitable maturity in each case. And permit me to say, that I look upon the locust, as the most profitable timber for cultivation in our country; and have often in my visits to the Prairies of Wisconsin, and other Western States, wondered why it was not more generally cultivated, both for timber and shelter from the wind.

The yellow, is the only kind used here, and probably the best for timber or fuel. The seed can be procured at any of the large seed stores of Albany, Rochester or Buffalo, and probably at Chicago. If the trees can be found of sufficient age in Illinois, or Wisconsin, seed can be obtained from them at this time, as it remains on the trees all winter, and is not injured by the storms. I have seen trees bearing seed, on the prairie a few miles west of Racine. Probably plenty can be procured in that region merely for the gathering. Plant the seed about 15th May, or when the ground is in good condition to plant corn.

Prepare the seed for planting, by pouring on it rain water, nearly boiling hot. Let it stand in a warm place, say under the stove, or near the chimney corner, until the seeds have most of them swelled to about double their usual size; and are so soft as to be easily cut in two, by pressure between the finger and thumb nail. This requires 24 to 48 hours soaking, and if all are not swollen, sow those that are so, and repeat the soaking, but with water not quite so warm as at first.

Prepare the ground in the most thorough manner. It should be rich, dry and mellow, and free from the seeds of weeds. I have succeeded well, on a green sward, freshly plowed, and the surface well mellowed with the rake. The ground should be in fit order for sowing onions, as the plant when it first shoots is very tender and small. Plant shallow, not over one inch deep, and tread the ground or roll it after the seed is in. Rows about 4 feet apart, and seeds 3 or 4 inches apart in the row; so as to insure plants enough for one to each space of 12 to 18 inches. Hoe them as soon as they are fairly up, which will be in 15 to 20 days after planting. With these, as with every other young plant, careful attention is necessary, to insure the best success. If well attended to, an average growth of 4 feet each, may be expected the first season. After the first year, but little attention is needed. Do not undertake to improve them by trimming, except to prevent crotches, which are objectionable if timber is the object.

They will withstand the winds, as well probably as any other tree. The only enemy we dread is the borer, which is sometimes troublesome, but not seriously so. The general advantages are, rapid growth, 14 to 16 years producing trees large enough for posts, great durability, and weight, with strength and toughness, fitting them for wagon hubs, railroad ties, &c. No other timber, I think, equals it for the purposes desired, and certainly none in the facilities with which it can be produced. Levi J. Hopkins. *Throopsville, N. Y.*

Deep Plowing and Large Crops.

The following extract from the address of Thomas Allen of St. Louis, before the Franklin County Agricultural Society, Missouri, furnishes a strong proof of the benefits of deep plowing and thorough pulverization,—a mode of treatment which is doubtless specially applicable to the deep soils of the west. As for stirring the soil in a dry season proving detrimental to the crop, we could cite many instances in proof of its great advantages, provided it is *thoroughly and efficiently done*—if superficial and imperfect, it may be of little use, and we have known it under peculiar circumstances to prove injurious. We mention here but a single case of the beneficial results of thorough and constant pulverization, during the past unprecedentedly dry summer. A nurseryman in western New-York who has been remarkably successful in the growth of his young trees, which did not appear to be retarded in the slightest degree through the late intense drouth, informed us that he employed about double the usual amount of labor through that critical period, to keep the soil constantly, in motion—and he discovered that it always came up moist, while in all other places, differently treated, the earth appeared as dry as ashes.

Seven acres was enough for a Roman farm, and two and a half acres in Flanders is deemed sufficient to support a man with a wife and three children. We have an example of a gentleman in Bracken county, Ky., who has produced this season, it is stated, notwithstanding the drouth, seventy-five bushels of corn to the acre, on a field of one hundred and twenty-five acres, and this he has done by sub-soil plowing. Suppose each family in Franklin county had made their twenty-one acres produce as well? Each family would have had a crop of 1,575 bushels, making 3,150,000 bushels in the county, or more than six times as much as your entire corn crop of 1850. This possibly might have been the result, had each family in your own country last spring put in twenty-one acres of corn, and in plowing the land had simply put the plow into the ground up to the beam or perhaps better, instead of turning up the sub-soil, had merely pulverized it by a sub-soil plow. Yet this result would not have been equal to the capacity of the soil. In that same year 1850, there were nine competitors for the premium corn crop of Kentucky, each of whom cultivated ten acres, and their average crop was one hundred and twenty two bushels per acre. Now many suppose that much stirring of the soil, particulary in a dry season, is detrimental to the crop, whereas the true philosophy of the matter seems to be, that mother earth is something like a sponge, ever ready to absorb moisture and gases from the dews and the atmosphere, and thus favor disintegration, and the development of the alkaline and other ingredients which give nutriment to the roots of plants: and this she is the more able to do when the surface is really spongy by stirring, and not packed and baked and rendered impervious, by the tramp of feet, the beating of storms, and scratching, rather than plowing the surface. Spade husbandry is an illustration and proof of the benefits of deep plowing. The advocates of deep plowing do not mean to say, that the process gives any new ingredient to the soil, except what comes by air and moisture, but rather, renders more available the latent virtues which it already possesses. Hence, it will not do to rely on that process alone, because the soil will soon become exhausted. But by rotation of crops, by returning to the soil, in manure, some of the ingredients you have taken from it, and by deep plowing, together, you are in the way of producing the best results. And this is no new theory. It is older than Virgil, and Cato, and Cincinnatus, and Pliny, and Columella.

"Quid est agrum bene colere ?" said Cato : 'Bene arare. Quid secundum ? Arare. Quid tertium ? Stercorare.'

Plow, plow, and then manure; that is the old theory, and just as good now as it was two thousand years ago, and a little better ; because we can more effectually reduce it to practice.

Plow early, plow deep, cross furrow, harrow well, manure and fallow your land, and change your crops, was the doctrine of Virgil.

> "When first young Zephyr melts the mountain snow,
> And spring unbinds the mellow'd mould below,
> Press the *deep plow*," &c. * *
>
> * * * * * *
>
> "Rest by *alternate fallows* wearied earth,
> And leave the soil to harden into birth!"
>
> * * * * * *
>
> "Yet shall thy lands through easier labor rear
> Fresh crops by *changeful produce*, year by year,
> If *rich manure* new life and nurture yield,
> And *ashes* renovate th' exhausted field."
>
> * * * * * *
>
> "Th' obdurate glebe with *frequent harrow* break,
> With osier hurdles each dull clod awake.
> Fair Ceres' self shall kindly view thy toil,
> When sidelong *furrows cross* the forrow'd soil."
>
> *Virgil—Georgic I.*

Millet for Soiling or Fodder.

MESSRS. EDITORS—I have seen frequent recommendations to sow Indian corn for soiling. I have tried it several times ; but I have always found that my cattle would not eat it when they had other food, and that my cows invariably failed in their milk when soiled with it. For this purpose and for dry fodder, I prefer Millet by far. The latter may be sowed, in our latitude, from the 1st of May to the last of June. If sown during a dry spell, the seed will remain uninjured in the ground until a sufficient quantity of rain has fallen to make it shoot up. It is excellent as green food for cows, and first rate dry fodder for horses and for all kind of cattle. The quantity of seed should be from twenty to twenty-eight quarts per acre, according to the condition of the soil. It is apt to grow coarse when sowed too thin on rich ground. Plow and harrow, then sow, cover with light seed harrows followed by the roller. If intended for fodder, it should be cut with the naked scythe, when the heads and stalks are getting yellow and the blades are still green. The mowers should lay it lengthwise of the swaths, which they will do easily with a little practice. It should be left in swaths, in favorable weather until nearly dry, then gathered in bunches with the hands, turned upside down and left to dry again before binding ; but should there be wet weather, it may be shocked before it is dry, and will remain safe until there is an opportunity for drying ; great care, however, should be taken not to take it up before it is perfectly dry, as it is very apt to ferment and to get mouldy. It may be thrashed by machine, but I prefer the flail. Thrashing lightly without unbinding, only turning the sheaves, will take off all the perfect seed. By these means seed enough is obtained to pay for the greatest part, if not the whole, of the expense, and you have from two to four tons of excellent fodder per acre, having the ground in good order for putting in wheat after a single plowing. If seed rather than fodder, is the object, it should be sowed rather thin and cut when perfectly ripe. A. B. *Wilmington, Del.*

The Strawberry Potato.

MR. TUCKER—In compliance with your request, I proceed to give you some account of those White Strawberry Potatoes mentioned in the COUNTRY GENTLEMAN last spring, and of which I sent you a sample in November last. I obtained eight of the kind from a friend of mine in Oneida Co, N. Y., in the winter of of 1850. He told me that he obtained them at the State Fair in Buffalo, and that they were said to have been raised from the seed, in the state of Ohio. Two of them I gave to my man to plant. By some casualty he lost them The other six I planted in my garden, in a careful manner ; making 28 hills by cutting. The product was about 3 bushels. Before I had secured them they were nearly all affected by the rot. This was in the fall of 1850. I saved enough, however, of extremely small ones, to plant 14 hills the next year. The yield was nearly half a bushel, not enough to give me an opportunity to test their eating qualities. The whole product was planted again the next season, and the yield, after deducting what my family had used as early potatoes, (they are a little earlier than the Mercer,) was 6 bushels. Deducting what I had given away as specimens, the whole were planted the next season. This was in 1853. They were uncommonly fine, but did not appear to do so well on the mucky soil, on which they were planted.

The produce was 56 bushels—of these I lost 28 by the rot, which prevailed so extensively that season. These were sold at from 12½ cts. each, to $10 the barrel. I planted the last season some two or three barrels, and notwithstanding the severity of the drouth, the yield was 110 bushels. By careful observation from year to year, I feel warranted in the conclusion that the natural yield above any other variety that I am acquainted with, is nearly double ; and as to the rot, they are no more subject to that disease than any other variety. As to their eating qualities, I have never seen their equal. They are called the "White Strawberry," which, on trial, will be found aptly to describe them as a table potato. "White," because they are as white as superfine flour. "Strawberry," from the fact that they do not grow as other potatoes, but have rather vines than stalks; something like a strawberry bush—and the leaves look like a strawberry leaf. The above is all I know of this variety of potatoes. I intend to dispose of about 80 bushels of the last year's crop—the price is $4 per bushel, or $10 the barrel of 2½ bushels, delivered in Albany. I do not intend this hasty line shall be an advertisement, yet if any inquiries should be made respecting them, a line addressed to me will receive prompt attention. G. W. DURANT. *Rensselaerville, Albany Co, N. Y., Jan.* 1855.

The potatoes sent us by Mr. DURANT, were superior to any we have had on our table, either boiled or baked, the last year.

Notes on Fruits.

On looking over the last Report of the American Pomological Society, we observe many interesting facts on the subject of fruit culture, which, with the suggestions they have occasioned, may be acceptable and useful to our readers.

Influence of Growth on Hardiness. Our readers will recollect a striking instance lately given in this journal, of the effect of growth on the hardiness of the Osage Orange,—where luxuriant vegetation on a hill caused the destruction by winter of shoots four or five feet long, while a moderate and well-ripened growth in a frosty valley did not lose as many inches. We observe in the report of the State Fruit Committee from Maine, a case stated, where an orchard of eighty pear trees was planted in autumn while the leaves were yet upon them, and which appeared to induce a cessation of growth and ripening of the wood. The subsequent winter was very severe, (31° below zero,) but these escaped injury, while of the remainder in the nursery row from which these were taken, a considerable number were killed.

There is one crop (the ice crop,) that never fails in Maine, and this advantage, possessed by that state, in connection with the late ripening and excellent keeping qualities of winter apples there, furnish peculiar facilities for exportation; and we are informed that Baldwins have been packed with ice and sold at Calcutta, weeks and even months after the stock of this variety has been exhausted at home.

Apples in Vermont. The report of C. Goodrich of Burlington, informs us that the Northern Spy, so far, has quite failed in fulfilling the expectations at first raised in relation to it. The grafts were purchased of a Rochester nurseryman in 1846, at $6 per 100 (which he thinks was not "fair," but does not state whether the nurseryman who charged the price, or the purchaser who encouraged the extortion was unfair,) and now, in 8 years they have produced but little fruit: while the Baldwin, in half that time, has produced full crops. This is a very common disappointment with the Spy, and it may be unsuited to northern Vermont; but even in western New-York, where it succeeds so finely, and has proved so profitable when well cultivated, we know of not a few who are becoming impatient with their young orchards of this sort, and are about to alter the tops. The truth is, the Spy was much overpraised at first, and now that the illusion has become somewhat dissipated, many are disposed to set it down much lower than its merits deserve.

This report speaks very highly of the *Gravenstein*, as fair, very hardy, a good grower and *bearer*, and in every respect valuable in Vermont. There are, we believe, but few if any localities any where, that this excellent variety does not seem well suited for.

Nurserymen's Reputation. Some of the State reports speak of *nurserymen* as persons of rather doubtful reputation, and "nurserymen's humbugs" are sometimes alluded to. We do not think this is unjust; for with some very honorable exceptions, that profession, more than any other, has been filled in this country by quacks and pretenders. We happen to know a few, who have so very little knowledge of pomology, as not to be able to distinguish some of the most common fruits—who positively, for instance, do not know a Baldwin from a Spitzenberg, nor a Bartlett from an Urbaniste,—who succeed in crowding annually thousands of dollars worth of trees into market—and who impose vast numbers of spurious sorts on the public. They sell a little "*cheaper*," and this explains the whole. While these things are so, we are willing the "profession" shall have its richly-earned reputation; and those who are capable and honest, must build a character on their INDIVIDUAL MERITS.

Winter-killing of Dwarf Pears. Our readers have been already informed that last winter was peculiarly destructive to the dwarf pears in some of the western States, and which has induced some to think them unadapted to the west, although there is reason to believe that this is to be regarded as only a rare or occasional occurrence—like that of the season some years ago, that destroyed such large numbers of young pear trees on *pear* stocks, the quinces entirely escaping. In corroboration of this belief, we observe that the State Fruit Committee in Connecticut, speak of the many dwarf pears in that state destroyed the past winter there—a locality where they have hitherto succeeded so well, and where they will probably continue to do so during all ordinary seasons.

Influence of the Stock. We have always regarded the influence of the stock on the fruit borne by the graft, as precisely similar to the influence of soil or cultivation. The stock furnishes sap plentifully or sparingly according to its nature, and modifies the character of the crop just as a cold or warm, an early or retarding soil, accomplishes the same result. We know that the character of the soil, and more especially whether under good or bad culture, often produces great variations. Extremely dissimilar stocks do the same, although the nature of the variety is not *permanently* changed. The report of J. B. Eaton of Buffalo, states that he has worked the Rhode Island Greening on a sweet stock, and the fruit becomes more highly colored, being often a beautiful yellow with a red cheek, and that it loses a part of its acidity. A suggestion of some importance immediately occurs,—may not the crops of some varieties be materially improved by a selection of certain stocks, and may not a series of experiments be worthy the attention of those refined amateurs, who wish to secure the very best and highest flavored specimens?

Cracking of the Pear. The same report informs us as a proof that the cracking and spotting of the pear is not to be ascribed exclusively to the nature of the soil, that the White Doyenné, "in the same row, but a few feet distant, of the same age, from the same nursery, and upon the same soil," will produce, some fair and fine fruit, and others only cracked and imperfect specimens. To which we may add, that the only appearance of this disease that ever occurred on our own grounds, was on a young and thrifty Doyenné, on a soil admirably adapted to its growth, in a single season when the leaf-blight was remarkably prevalent: and that in all other seasons before and after this occurrence, the fruit presented that large size and ruddy appearance, for which the finest specimens at our fruit exhibitions are remarkable.

Amusing Names. The Report of the Pennsylvania Horticultural Society on Seedling Fruits, gives us among others, the following names of new and valuable sorts, some of which might possibly be changed for a better;—Never-sick, Evening Party, Sink, People's Choice, Freeze and Thaw, &c.

Fruit Culture in Mississippi. J. C. Jenkins, of this State, gives the "fifteenth of May" as the time of ripening for the Madeleine pear and Doyenne d'Eté; and from two to four weeks later for Bloodgood, Gifford, Rosticzer, and Tyson. Our more common autumn varieties, such as Angouleme, Doyenne, Diel, Bosc, Flemish Beauty, &c., ripen from the middle to the end of summer; while the Winter Nelis, Chaumontelle, Glout Morceau, &c., prove to be middle and late autumn sorts.

We would advise our southern neighbors to look well to the fact of the early maturity of our summer pears there—they may yet establish a most important and profitable branch of business. Pears may be shipped much longer distances than peaches, and if they may be gathered for sending north about the time our pears are in blossom, or in full leaf, they would sell in immense quantities and at very high prices.

The Julienne. This pear was long since rejected by most of our northern fruit raisers, as unworthy of cultivation. The Cincinnati pomologists retain it as one of their best sorts; but the commendation it receives from the Mississippi report, furnishes the most remarkable proof of the variation sometimes effected by climate. We quote the exact words of the report:

> This pear I think the most desirable for general cultivation in this State of all the summer varieties; has fruited with me both on standard and quince. On quince stock, my trees, six and seven years from bud, have a trunk eight inches in diameter and fifteen feet high; vigorous and healthy wood. Trees this year loaded down with fruit; had to thin out, leaving about three hundred specimens on each tree; will ripen in fruit cellar, if taken from the tree, from middle of June to end of July, and continue in eating to 20th August: fruit large size; most of my specimens weighed half a pound, and not unlike Bartlett in shape; ripen in fruit cellar beautifully, turning from green to a rich lemon yellow; surface shining, waxy, and looking as if varnished; flesh melting, buttery, and rich, and having a most delicate perfume: quality best. Fearing I might be over-estimating this variety, I invited to my house a number of gentlemen who were familiar with best fruits, north and south. I had in eating, at the same time, White Doyenne, Bartlett, Beurré Bosc, Beurré Diel, Golden Beurré of Bilboa, Duchesse d'Angouléme, and some other varieties, but the Julienne bore off the palm, without a dissenting voice, for beauty in color, for its melting qualities, and for delicacy of flavor.

The question immediately occurs, What would be the product of a single acre of such trees? And could not such large and beautiful fruit be sent to our northern markets, at least one month before our very earliest sorts (small and poor as they are) make their first appearance?

Aspect for Southern Orchards. Although the thermometer has never been known to fall lower in Mississippi than fourteen, and fruit trees are never killed by the cold, yet we are informed that the same care is needed as at the north to secure a northern exposure. Apricots absolutely require a place on the north side of buildings, or other similar protection. The great liability of pears to rot at the south, renders it very essential to pick them early, and house-ripen them; and great advantage against the effect of drouth has been derived from irrigation, by the slow leakage from a barrel of soap suds, placed at each tree.

How to Make a Bouquet.

For center table vase.—Considerable ingenuity and skill can be displayed, where flowers are plenty, in fixing this necessary adjunct for a party. It may consist of a low one, which is generally made by piling up moistened sand in the dish as high as possible, cone-shaped, and sticking this full of flowers, beginning at the bottom—or it may be made in this wise, when, if brilliant effect is desired, nothing can be handsomer.

Fill the dish even with the top with just moist sand; then take a few nice bushy branches of hemlock, from two to three feet high, and stick perpendicularly into the sand. Now take some pieces of string and tie the hemlock in several places, at the bottom, as large as the bouquet is wanted, gradually bringing the top to a point. The height should be determined by the height of the lamp usually over the table, and the size of the bottom of the bouquet. If the hemlock is properly placed in the sand, here will be a ground work to commence placing the flowers on.

A quantity of green, such as large scented geranium leaves, should now be stuck in all round the bottom, and similar rows round to the top, decreasing the distance between each row according to the diameter. All the flowers without stems sufficient of their own, must have pieces of willow fastened to them; where the flowers are small, several to be tied in a bunch, taking care that all hang as loosely as possible.

Select flowers the most drooping; for winter, nothing is finer than the Abutilon. Fuchsias, when they can be had, are best of all; stick these around the bottom, to hang gracefully down. Take all the most conspicuous flowers, (camellias for winter and roses for summer,) and place at equal distances over the whole cone. They may be placed indiscriminately, without order, except for contrast in color, or if ample flowers of white and scarlet are at hand, they may be placed in circles first white, then red, and so on to the top, the distance between the rows to be determined by the stock of large flowers. After these are all stuck in, the interstices should be filled up with such small flowers and green, as are at hand. The top should be finished with a few sprigs of some erect somewhat spreading flower, as cestrum, salvia, &c.

The small glass vases usually around the large one, should have one camellia or rose in each; some other little simple flowers, as the daisy, around, and some green to hang over the side. Edgar Sanders.

Potato Experiments.

In consequence of the premiums offered by the New-York State Agricultural Society, Mr. H. H. Eastman of Marshall, Oneida Co., N. Y., has made some interesting experiments in potato culture, the full details of which will be found in the *Transactions* of the Society for 1852, page 342, and in the volume for 1853, recently issued, page 297.

In the first year's experiments, 1852, some of the most noteworthy results were as follows: Ashes, lime, sulphur and salt-petre (nitrate of potash,) diminished rather than increased the yield. A tablespoonful of gypsum applied when the potatoes were up, increased the crop from 130 to 156 bushels per acre. Hog manure, half a shovelful in each hill, gave the largest crop—271 bushels per acre. Fowl manure, a large handful in each hill, gave the next best yield,—229 bushels per acre. The plot without any manure at all, gave 166 bushels per acre.

The soil was a gravelly loam, greensward, plowed nine inches deep early in the spring; potatoes planted 18th May, and hoed twice; variety red "Irish lunkers."

To test the question of early, medium and late planting, one plot was planted the 18th of May, and gave 142 bushels per acre; another, planted the 23d of May, gave 131 bushels, and another, under similar conditions, planted June 8, gave only 100 bushels per acre.

The experiments in 1853, were with three different varieties, the Mercer or Philadelphia, the red Irish lunker, and the Carter. The ground was a greensward, plowed early in the spring, eight inches deep. Soil mucky; planted May 7; the hills were three feet apart, each way; seed planted whole. Hoed twice, last time slightly hilled. We have made selections from the principal results and embodied them in the following table, which shows the produce of the three varieties without any manure, and the effect of the various fertilizers, *applied in the hill* at the time of planting.

Description of the manures, and the quantity applied in each hill.	Total number of bushels per acre.			Increase per acre from manure, in bushels.			Quant*ity* of *unsound* potatoes per acre, in bushels.		
	Mercer.	Irish lunkers.	Carters.	Mercers.	Irish lunkers.	Carters.	Mercers.	Irish lunkers.	Carters.
1.—No manure,	72½	117	134⅔	....	....	....	1⅔	1	2
2.—⅓ shovelful hog manure,	130⅔	255	282	58	138	147⅓	15⅔	26½	21⅔
3.—½ " long unfermented manure,	104⅔	154½	179⅔	32	37½	45	8⅓	20	45½
4.—½ " compost,	89½	183½	152½	17	66½	18	4⅔	17½	83⅔
5.—Tablespoonful of guano,	87	172	134⅔	14½	55	00	1⅔	6	31½
6.— " superphosphate of lime,	96⅔	169½	138⅔	24	52½	4	4⅔	3	13⅔
7.— " gypsum, or plaster,	....	106½	....	....	-10½	....	....	3½	....
8.—½ handful of poudrette,	89½	163	146⅔	17	46	12	3½	9½	38⅜
9.—Handful of wheat bran,	96½	148½	150⅔	24	31½	16	5½	....	3½
10.— " fowl manure,	75⅔	140⅓	....	3	23⅓	....	5½	....	....
11.—½ handful of ashes,	85	143½	....	12½	26½	....	1	....	....
12.— " lime,	....	117⅔	....	....	—⅔	....	....	....	....

There is a striking difference in the yield of the three varieties,—the Mercer, in every case, producing less than the Irish lunkers and the Carters. They have, however, as a general thing, fewer *unsound* potatoes. The Carters appear to be exceedingly liable to disease. In one instance, no. 4, with compost, more than half, or 83⅔ bushels out of 152½, were unsound.

The hog manure in the second, as in the first experiments, gives the greatest increase with each variety. The Carters, with this manure, gave 282 bushels, in the aggregate, or 260 bushels of *sound* potatoes per acre. In these days of potato degeneracy, this is a good crop. Long, unfermented manure, gives a comparatively poor crop with all the varieties. Poudrette, wheat bran, hen manure, and ashes, have but a slight beneficial effect. Lime gave no increase, and gypsum would seem to have done more harm than good, since, with the Irish lunkers, the plot receiving a tablespoonful of plaster in the hill, actually yields 10½ bushels per acre less than that with no manure. This confirms the common opinion that plaster has little or no effect on low, moist soil, while on dry upland it usually proves beneficial. In the first year's experiments, on "gravelly loam," plaster applied when the potatoes were up, gave an increase of 26 bushels per acre, and applied in the hill at the time of planting, an increase of 32 bushels per acre.

The comparative value of superphosphate of lime and guano for potatoes is a matter of discussion, just now, and we were in hopes that these experiments would have thrown some light on the subject. Unfortunately, however, the guano was applied in the hill with the potato, and of course, the "seed was injured" and the crop lessened. Under these circumstances it is hardly surprising that the guano, except in one instance, gives a less increase than the superphosphate. Our own experiments and observations on this point, lead us to the conclusion that good Peruvian guano is a far superior manure for potatoes, than superphosphate of lime. And indeed, Mr. E. found in another experiment with Irish lunkers, that guano, applied on the *top of the hill* at the time of planting, produced a better crop than superphosphate of lime similarly applied. Thus, the unmanured plot gave, per acre, 78½ bushels; the superphosphate 110 2-3; and the guano 156 bushels. It is said, too, that in this case also the seed was injured, though doubtless less so than where the guano was in actual contact with the tubers. It is seen that the guano doubles the crop, and gives 45 bush. per acre more than the superphosphate of lime.

A tablespoonful of salt-petre (nitrate of potash) applied in the hill, gave 75 2-3 bushels per acre, or 3 bushels *less* than where nothing was applied. This is in accordance with the previous year's experiments, where salt-petre *lessened* the crop 4 bushels per acre. A teaspoonful of sulphur gave an incsease of 6 bushels; of gypsum an increase of 8 bushels; and a handful of charcoal an increase of 26 bushels per acre.

The experiment of early, medium, and late planting, was again tried, in 1853, and resulted, as before, in favor of early planting. Variety Irish lunkers; whole tubers, planted in hills three feet apart. Those planted May 9th gave 104 bushels, May 30th, 70 bushels, and June 18th only 45 bushels per acre.

We must say that these interesting, well designed, and accurately conducted experiments, would have been, to the writer at least, far more satisfactory, had they been on a larger plot of ground: 25 and 30 hills each is certainly not enough, since any accidental variation is multiplied by 190, or 160, in calculating the acreage results. Better far have fewer experiments, on a sufficient scale to render them demonstrative, than a large number on so small a scale as to render the results uncertain.

Best Sheep for New-England.

MESSRS. EDITORS—I wish to occupy a small space in the Country Gentleman for one or two numbers, in conversation with my Brother Farmers, particularly of the New-England States, with regard to the cultivation of the best breed of Sheep for their future profit That a large portion of our country has been fitted by the former convulsions of nature, to be used only as grazing districts, is the experience of all mountain farmers. Our hill-sides, covered with rocks and stones, present such obstacles to their cultivation by the plow, that it would be useless to try to compete with our western neighbors in the cultivation of wheat for a living. Grazing, then, must continue to be as it has been, the principal source of income for the farmers of the mountainous portions of our country.

The great Author of nature has so economized the productions of the earth to the wants of the different animals feeding upon them, each variety appropriating something which would be rejected by the others, that it becomes the interest of nearly every one to introduce on their farms a few of each different kind of domestic animals.

Every farm then, should have upon it a small or large flock of sheep, according to the extent of its territory. They will grow and thrive in some places where it would be almost impossible for larger animals to get a decent living. They will eat briars, brakes, and many kinds of weeds, which would be entirely rejected by the cow, or horse, and thus turned to profit.

Our farms being already pretty well stocked with this branch of husbandry, it is important to inquire whether we already possess the best breed for the profit of the farmer, that is, whether we shall continue on with our present fine wooled flocks, or change them for a kind that will appropriate their food more as flesh and fat, regardless of the quantity and quality of their wool.

The western states afford such facilities for the raising of fine wool at a small cost, that it would be folly to entertain the idea of a successful competition with them. Where land can be obtained at a cheap rate, and flocks of one or two thousand can be attended by one man with the help of his dog, and wool being so light for transportation to market, this must become a business which the western farmer will enter into on a large scale. Already we are feeling the effects of this competition severely. In this section, two clips of wool are lying in our chambers, and buyers are leaving it and going to the west, and purchasing their wool where it can be obtained at a cheaper rate. The consequence will probably be, that the raising of fine wool will be abandoned in the Eastern states.

Meat is in great demand as food for our growing population. New and thriving villages are continually springing up among our New-England hills, connecting themselves by a network of railways to the farming districts, and these villages swarming with a consuming instead of producing population, will continue to enhance the price of meat of all kinds for many years to come.

That the Merino species of sheep is unsuited as meat producing machines, is evident from their structure and habits. The large quantity of oil which escapes from their bodies, filling their wool, and sometimes covering it with a hard crust, is said to be animal fat, thus wasting an important production for the farmer's profit. They are generally wild in their nature, and restless in their habits, thus wasting considerable portions of their food by this means.

Good mutton is considered the healthiest of meats, and its consumption is on the increase in this country. The prices range higher than for either pork or beef, and I am satisfied that with the right breed it can be made cheaper.

The most profitable breeds for mutton purposes, consist principally of the South Down, Leicester, Cotswold and New Oxfordshire. This last variety is said to be an improvement on the Cotswold. They were first imported into this country by Mr. CLAYTON REYBOLD, of Delaware. In the year 1846, he visited England for the purpose of examining their various breeds of mutton sheep, with a view to introducing the best into this country. After careful examination, he chose the New Oxfordshire, as combining the greatest number of good qualities, all things considered.

In a "Prize Essay," written some time ago by Mr. ROBERT SMITH, of England, and published in the Journal of the Royal Ag. Society, the following language is used:

" The New Oxfords are termed long wools, but more from the circumstance of their not coming under the denomination of Leicesters, than from their extra wool bearing properties. They are bred principally in Oxfordshire, and the surrounding districts, particularly in the neighborhood of Broadwell, the residence of Mr. Charles Large—Charlesbury, the residence of Mr. Smith, and Sevenhampton, the residence of Mr. Handy, the most eminent breeders, and to whom *great credit is due for their exertions in raising this valuable breed to its present high state of perfection.*"

"They are of large dimensions, and have a great propensity to fatten, arising from their wide frame, quietude, and open texture of flesh, which is of quick growth, and consequently expands itself more rapidly than flesh of other qualities, but they do not possess that exactness of form peculiar to smaller animals, though they have a better carriage. *For many years the male animals have been eagerly sought after with a view to increase the size and frame of other long-wooled breeds.*"

One of the most extensive breeders and improvers of this kind of sheep is Mr. John T. Andrew, of West Cornwall, Ct. In the spring of 1853, I purchased a few of these sheep from his flock, and from what little experience I have had with them, they fully sustain the high reputation which Mr. Andrew has given them in the former numbers of the Country Gentleman.

In the next communication, I shall give the results of experience with this breed of sheep, and draw some comparisons between them and the Merinos, from actual experiments, with regard to their mutton and wool bearing qualities, also the result of crossing between these two breeds, and the way how the farmer of limited means can receive immediate benefit from this or other mutton breeds. Lawrence Smith. *Middlefield, Hampshire Co., Mass., Dec.* 25, 1854.

Soaking Fence Posts in Chloride of Zinc.

Messrs. Editors—In the January number of the Cultivator, 1855, I notice the article which I sent you relating to soaking fence posts in chloride of zinc for their preservation. At your desire I cheerfully communicate all the information I possess respecting its use.

It was recommended to a friend of mine by a distinguished chemist, as being effectual in preserving wood, in the ground, for many years. Some white birch poles which I have used for beans two summers, yet remain quite sound, with the bark on, and cut to a point, large end down.

The zinc should be used in the proportion of three quarts of the chloride to thirty-three gallons, or one barrel of water. The best way is to use a wooden tank, or box, and soak them all at once, about a week. It can be done, however, by using a barrel half full of the above preparation, and stand the posts in it upright, immersing only the part to be used under ground, allowing them to remain in the liquid the same length of time as above stated. The price of the zinc was sixty cents a gallon, when I bought mine, of the Roxbury Chemical works, who have an agency in Boston, I believe, Henry Burdell, Esq., No. 70 State Street.

Zinc has been used extensively as a disinfectant—one part zinc to 16 parts water.

I take the liberty also to send you, abridged, Mr. Green's recipe for using blue vitriol for preserving wood: "One pound blue vitriol to forty pounds of water. Soak dry timber about ten days. If it is green, six days will answer. It will do for all kinds of timber. Shingles will soak in four days. When a batch is taken out, more vitriol should be added. I have a piece of bass wood which has been in the ground six years, and is perfectly sound. L. B. Sumner.

Inquiries in Fruit Culture.

Please inform me in an early number—Is there a disease on *quince trees*, resembling the knot on the Plum—a species of Black Wart, looking like small bunches, on the older limbs? [We have never met with such a disease] Can you state the cure?

Would severe amputation of the branches be likely to be beneficial to rather old Quince trees? [Cutting out old, crooked, and stunted wood, would be decidedly beneficial—we have seen old trees which were quite unproductive, when so treated in connection with renewed cultivation, bear large, fine, and fair crops.]

In your opinion, would a rather moist situation suit the Currant, Gooseberry, or Blackberry best—shady—not soaking but near a drain? [We know of none of our common fruits, that succeed well on a soil so much soaked that air cannot easily enter the interstices—if so wet as this, underdraining will be desirable.]

Do you know of any cure for the gummy spots left on young peach trees after a long-past removal of small branches? [We have not encountered this difficulty—try ashes and good culture. JM. P. *West Philadelphia, Pa.*

Heading Down Tall-Stemmed Trees.—Will a tree about four years old, (Apple, Pear, or Cherry) with a long trunk, send out new shoots if the trunk (or stem) is shortened say 2 feet below the present fixed branches or head of the tree. J. L. H.

Apple and pear trees may be very safely headed down in the manner proposed, and they will in all ordinary cases, throw out fresh shoots. The better way probably, would be to remove nearly all the smaller branches above, and keep most of the new shoots rubbed off, which will tend to throw out new ones below, without making a large wound. But if the whole stem must be amputated, the wound should be well covered with a coating of shellac varnish or other composition. It would be unsafe to remove the whole top of a *cherry* tree at once, as it does not re-produce shoots so rapidly—a part at a time would be best.

Gas Tar in Horticulture.—We published some time since, a paragraph under this title from a French paper. We can add as a further proof of the repulsive nature of gas tar, and its destructive effects on insects, a statement recently made to us by Humphry Howland, Esq., of Aurora, N. Y., that he had found it incomparably the most efficient agent for destroying the common orchard caterpillar in his orchards. All that is necessary is to apply it by means of a swab on a pole, and the slightest touch that the insects receive from the pungent and corrosive liquid, kills them instantly.

Answers to Inquiries.

The Escape of Ammonia from Guano, &c.—Much is said against the farmers for allowing their stable and barn-yard manure to be exposed to the rains and heat of the sun, by which the ammonia is caused to escape and the manure made of little value. Will you inform us why the ammonia in guano, which is exposed to the heat of a tropical sun, does not escape? Will not heat without water cause the ammonia to escape from common manures? A Subscriber. *Manchester, Vt.*

Fresh excrements do not contain ammonia. They contain urea and other nitrogenous substances which by decomposition yield carbonate of ammonia. If no decomposition or fermentation took place, there would be no ammonia formed and consequently no loss. Moisture and a somewhat elevated temperature are both essential to fermentation. Hence the dung of fowls deposited in rainless regions, and where, from the intense heat, the water it contains is speedily evaporated, does not ferment, and the ammonia therefore does not escape, simply because it does not exist in the guano as ammonia. Were guano moistened and kept at a warm temperature, it would speedily ferment, and a large quantity of ammonia be thrown off.

Leached Ashes, &c.—Can you give me any information in regard to the use of leached ashes on sandy land. Also in regard to the use of waste leys of soap boilers, on sandy soil. It contains about 2 per cent. of potash, 8 to 10 per cent. of salt, and 1 per cent. of animal matter. James Hartness. *Schenectady, N. Y.*

A dressing of leached ashes, at the rate of 100 to 150 bushels per acre, we have seen attended with very beneficial results on wheat, on sandy and gravelly soil. Old leached ashes frequently increase the yield of wheat, on soil on which unleached ashes have no effect. The value of leached ashes for wheat, therefore, cannot be attributed to the potash they contain, otherwise the unleached would prove very beneficial for wheat, which is certainly not the case. The value of the waste leys for wheat, therefore, is not very great. In most cases we should expect little or no benefit from them. For beans they would probably prove a good fertilizer. For clover and peas, too, they may be useful.

Chips as a Manure, Churning and Underdraining.—I should be exceedingly obliged if you would give your opinion to the following questions: Are turning chips valuable for manure, as they would naturally be thrown out of the stable and mixed with other yard manure? If not injurious to the land, I would like to use them as bedding.

We have great difficulty in "fetching" our butter. We feed turnips twice a day. The women think this the cause of the trouble. Do you think so?

I have a piece of land of three acres; how many underdrains (ditches) ought I to have in order to drain it as it should be? S. W. Cowles. *Unionville, Ct.*

Chips or sawdust contain considerable fertilizing matter, but they decompose so slowly as to be of little or no manurial value. Unless used in very large quantity they would not be injurious; on heavy land they would probably prove immediately beneficial, from their mechanical action, and would ultimately furnish carbonaceous matter to the plants.

We believe English farmers think that turnips, besides imparting a disagreeable taste, render cream difficult of churning, and, many writers to the contrary notwithstanding, seldom feed turnips or ruta bagas to their *milch* cows. Mangel wurzel and beets are, we think, much the better roots for milch cows. By keeping the cream for a few days at a temperature from 60° to 70°, so that it will sour, we have rarely met with much difficulty in churning, even though the cows had turnips. We should be glad if our experienced correspondents would give their opinions on this point.

The number of underdrains required to drain land, depends so much on the character of the soil, and whether it contains springs, &c., that it is impossible to give any general rule. We have seen a level field of tenacious clay only effectually drained by putting drains three and a half feet deep, one rod apart. There is land that does not need draining at all, and much that does may be drained thoroughly by placing the drains eight or ten rods apart. The deeper the drains, as a general thing, the fewer will there be required.

Hop Culture.—*A Beginner.* You will find all the information you desire on this subject, in the vol. of The Cultivator for 1853, from a first-rate hop-grower of Otsego county. If you have not the vol., it will be sent you bound, post-paid, for $1.

Farmer's Encyclopedia.—I wish to inquire, what book, on Scientific Agriculture, or perhaps some Agricultural Encyclopedia, you would advise for the use of a Farmer's Club. H. A. N.

The *Farmer's Encyclopedia*, Philadelphia edition—price $4—is a valuable work, and probably the best for your purpose.

Candle-Wick.—Will you be so kind as to inform me of the best method of preparing candle-wicks previous to dipping, so that they will give a clear light, without smoking, and oblige a subscriber. B.

Steep the wicks in lime-water and saltpetre, and dry them. The flame is clearer, and the tallow will not run. *First rate* cotton wicking, and clear pure tallow, are all-essential. Lamps will have a less disagreeable smell by dipping the wick-yarn in strong, hot vinegar, and drying it.

Hominy Machine.—Is there a Hominy machine that you can recommend that runs with a band? If so what is its cost? What revolution must it have? Does it run with single or double geer? Will it make as good hominy as the ordinary domestic pestle, and what amount will it turn out per hour?

Please answer the above, and oblige your well wisher and subscriber. M. B. *Frankfort, Ky.*

[Will some of our southern correspondents answer this inquiry—it is quite out of our northern latitude.]

Hop Culture.—*G. W. D.* You will find the articles of *An Otsego Hop Grower*, on the culture of hops, in the Co. Gent., vol. 1, pp. 3, 99, 146 and 194—also in The Cultivator for 1853, pp. 12, 82, 113, 143.

Hoo Sung.—In answer to several inquiries, we state that Mr. J. B. Garber has given notice that he can no longer furnish the seed of this plant.

When you see a fence down, put it up; if it remains until to-morrow the cattle may get over. What ought to be done to-day, do it, for to-morrow it may rain.

Agricultural Societies.

United States Agricultural Society.

The third Annual Meeting of the United States Agricultural Society will be held at Washington, D. C., on Wednesday, February 28, 1855.

Business of importance will come before the meeting. A new election of Officers is to be made, in which it is desirable that every State and Territory should be represented.

Lectures and interesting Discussions are expected on subjects pertaining to the objects of the Association, by distinguished scientific and practical Agriculturists

The various Agricultural Societies of the country are respectfully requested to send delegates to this meeting; and all gentlemen who are interested in the welfare of American Agriculture, who would promote a more cordial spirit of intercourse between the different sections of our land, and who would elevate this most important pursuit to a position of greater usefulness and honor, are also invited to be present on this occasion. MARSHALL P. WILDER, *President.*

W. S. KING, SECRETARY.

New-York State Agricultural Society.

ANNUAL MEETING OF THE NEW-YORK STATE AG. SOCIETY. The annual meeting of the New-York State Agricultural Society, will be held in this city on Wednesday, February 14th, 1855. In the evening there will be a lecture on Entomology. On Thursday evening, the annual address by the President of the Society. There will also be held on the 13th, 14th, and 15th, a Fat Cattle Show, at WOOLFORD's Bull's Head, Washington Street; and an exhibition of dressed meats, and poultry, grain and seeds, butter, cheese, fruits, &c.

The following Judges are appointed:

FARMS.—Enoch Marks, Fairmount; E. W. Bushnell, Hillsdale; L. T. Marshall, Vernon Centre.

AGRICULTURAL ESSAYS AND DRAINING—Hon Geo. Geddes, Fairmount; J. J Thomas, Macedon: Hon. E. N. Pratt, Greenbush.

BUTTER AND CHEESE.—Hon. Moses Eames, Jefferson county; Levi Shaw, Rensselaerville; David H. Cary, Albany.

FIELD CROPS.—WHEAT, RYE AND OATS.—Joseph W Ball, Schuyler's Lake; Jonathan Tallcott, Rome; J. W. Jolley, Coeymans.

INDIAN CORN, BARLEY AND BUCKWAEAT.—F. P. Root, Sweden; L. W. Hall, Syracuse; Z. M. Saunders, Albany.

PEAS, BEANS, POTATOES, ROOTS, GRASS SEEDS, &c.—E. Cheseborough, Guilderland; Henry Keeler, South Salem; D. A. Bulkeley, Williamstown. Mass.

GRAIN AND SEEDS.—John McDonald, Salem; D S. Curtis, Canaan Centre; Wm. Bacon, Richmond, Mass.

FAT CATTLE AND SHEEP.—Thomas Bell, Mott Haven; Thos. H. Rutherford, East Chester; Hugh Crocker, Utica.

DRESSED MEATS—Robert Rome, Genesee; J. W. Bacon, Waterloo; P. Crispell, Jr., Hurley.

WINTER FRUITS.—Herman Wendell, M. D., Albany; George Ellwanger, Rochester; Henry W. Ludlow, Jr., Yonkers; T. G. Yeomans, Walworth; L. M. Ferris, Coldenham, Orange county.

ARRANGEMENTS FOR POMOLOGICAL EXHIBITION.—J. McD. McIntyre, Albany; Elisha Dorr, Albany; William Newcomb, Pittstown.

ARRANGEMENTS FOR EXHIBITION.—B. B. Kirtland, Jr.; E. Corning, Jr.; B. P. Johnson

Pamphlets containing the list of premiums, regulations, &c, will be furnished on application to the Secretary, B. P. JOHNSON, Albany, N. Y.

WAYNE CO. AG. SOCIETY.—The Annual Meeting of this Society was held in this village on the 13th inst. The following persons were elected Officers for the ensuing year:

President—Dewitt C. Van Slyck, Lyons.
Cor. Sec'y—E. Ware Sylvester, do.
Rec. Sec'y.—P. P. Bradish, do.
Treasurer—Wm. D. Perrine, do.
Vice Presidents—Joseph Watson, Clyde; E. N. Thomas, Rose; A. G. Percey, Newark; Stephen Tinklepaugh, Sodus; T. G. Yeomans, Walworth; Samuel E. Hudson, Palmyra; Dr. J. M. Wilson, Walcott.
Ex. Com.—E. Ringer, Galen; Samuel J. Cole, Lyons; David Griffith, Sodus; Alfred Hale, Lyons; Daniel Jennison, Galen. DEWITT C. VAN SLYCK,
Lyons, Dec. 15, 1854.

QUEENS CO. AG. SOCIETY.—The annual meeting was held at Hempstead, Dec 6, when Hon. Isaac E. Haviland was chosen President; John Harold, Hempstead, Cor. Sec'y; R. Willetts, Flushing, Rec. Sec'y; and a vice-president and manager for each town was also chosen. The payments for the past year, were $1,004.26, leaving in the treasury a balance of $256 61.

OTSEGO CO. AG. SOCIETY.—At the annual meeting held at Cooperstown, Dec. 14, the following gentlemen were chosen as officers of the Society for the ensuing year, viz:

President—JOSEPH W. BALL.
1st Vice President—BENJAMAN PIERCE
2d do—L. W. RATHBONE.
3d do—GEO. CLARK, Hartwick.
Secretary—J. B. WOOD.
Treasurer—GEORGE P. KEESE.
Executive Committee—John A. Rathbone, Noel Harrington, William B. Van Woert, John S. Brown, Alexander H. Clark, William Davison, Zebediah Martin, David Bundy, George Field, Charles McLean, William I. Compton, William Shipman, David Taft, John H. Caswell, Seth T. Winslow, O. N. Shipman, Thomas T. Higby, Philip H. Potter.
Joseph A. Cheney, Marshal.

ONEIDA CO. AG. SOCIETY.—The following Officers have been elected by the Oneida County Agricultural Society, for 1855:

President—H. H. EASTMAN, Marshall.
Vice Presidents—C. BISHOP, Verona; L. ROUSE, Marshall.
Executive Committee—N. S. Wright, Vernon; H. N. Cary, Marcy; James M. Tower, Sangerfield; Jas. Merriman, Whitestown; Jonathan Tallcott, Rome; Henry Rhodes, Trenton; Pliment Mattoon, Vienna; George Bristol, Kirkland; Geore L. Brigham, Augusta; W. O. Laird, Floyd.
Treasurer—H. R. HART.
Secretary—J. WYMAN JONES.

RUTLAND (VT.) AG. SOCIETY.—At the recent annual meeting, the following officers were elected:

President—HENRY W. LESTER, Rutland.
Vice Presidents—John L. Marsh, Clarendon, Alonson Allen, Fair Haven.
Rec. Sec.—Warren H. Smith, Rutland.
Cor. Sec.—Daniel Kimball, Rutland.
Treasurer—Zimri Howe, Castleton.
Auditor—Hiram H. Dyer, Rutland.

◆

TRUE IN SOME OTHER PLACES, TOO.—A Paddy, writing from the west, says "pork is so plenty that every third man you meet is a hog."

Notes for the Month.

Value of Liquid Excrements.—A correspondent (Vermonter) takes exceptions to the following statement made in the Country Gentleman of Aug. 10, by Mr. J. L. Edgerton, Georgia, Vt: "If the farmer will compare the analysis of guano with that of urine he will find urine as rich in every element of fertility as guano, with the exception perhaps of the phosphate of lime." Mr. Edgerton evidently referred to the *dry matter* of urine, and is unquestionably right. The *dry matter* of sheep's urine Dr. Gilbert found to contain 20 per cent. of ammonia. The dry matter was obtained by acidulating the urine with muriatic acid, and then drying it in an evaporating bath. Samples of Peruvian guano have been found which contained 20 per cent. of ammonia; but it is considered a superior article when it contains 16 per cent. of ammonia It is true, therefore, that pound for pound, dry urine is quite as valuable as the best guano; and all must be convinced that it is bad policy to send to Peru for guano, while the excrements run to waste at home.

Postage on Seeds.—Mr. E. H. Bliven of Bridgewater, N. Y., writes us: "I wish you would call the attention of cultivators and others to the injustice of requiring postage on seeds at the rate of six cents per ounce and for printed matter only at the rate of one cent per ounce. I would suggest that you get the names of our most prominent agriculturists to a petition asking the postmaster general to let all packages of seeds of one pound or less pass through the mails at the uniform rate of one cent per ounce prepaid." We think with Mr. B. that justice to the great agricultural and horticultural interest requires such a change in the postage law as he suggests. But it is useless to petition the Post Master General. He has no power to act in the matter. Congress alone can alter the law. A petition to congress might do some good, but the best way would be to attend to these matters at election time and send men to Washington who have some sympathy with agricultural pursuits and rural improvement.

A Rogue.—A gentleman of Noblesville, Indiana, writes us that a pretended agent for our papers, has been taking up subscriptions in that neighborhood for The Cultivator, and charging $1 per year. We have one of his receipts, from which it appears his name is *W. M'Given* or *M'Goun* He is an impostor, and we caution the public to beware of him. We believe he is liable to a term in the State's Prison for obtaining money under false pretences.

Tea Wheat.—Mr. E H. Bliven of Bridgewater, N. Y, has sent us a very fine sample of "Tea wheat," recently introduced in his neigborhood from Canada. It is a spring whest, "a strong grower, with coarse stiff straw, and less liable to smut, or the attacks of the weevil, than other varieties of wheat cultivated in that vicinity." Mr. B. has had some of it floured, and it produced 44 lbs. of superfine flour to the bushel. It yielded last season of drouth, 20 bushels per acre.

Choice Seeds.—We are indebted to I. N. Briggs of West Macedon, Wayne Co., N. Y., for a package of choice seeds. Our readers will see by referring to our advertising columns of last week that Mr. Briggs is prepared to supply orders by mail.

Wheat Crop of Great Britain.—The Mark Lane Express says: —"The average of the three Scotch counties last year stands thus;

Roxburghshire,........................	22 bushels.
Haddington,...........................	26 "
Sutherland,...........................	32 "

giving a general average of about 26 bushels; but this is under ordinary years. Upon the whole, our averages are rising—that is to say, they now exceed what they were a few years back; and probably 28 bushels per acre may not be far from the ordinary average of England. With regard to the average of this year, opinion is so much divided that, as yet, it is hardly safe to give a definite estimate, some setting it at one-fourth above that of ordinary years, others at a great deal less."

Albany County Ag. Society.—The second annua meeting of the Albany County Ag. Society was held in the State Agricultural Rooms on the 3d inst. There was a large attendance of members who manifested a deep interest in the welfare of the Society. There is now in the hands of the Treasurer $1,100, and the prospects of the Society are most encouraging. Some have thought that the farmers of Albany County could not sustain an Agricultural Society, and their past inactivity gave some plausibility to the opinion. The success of the fair last year, however, and the interest now manifested lead us to hope that the Albany County Ag. Society will soon be what there is no reason it should not long have been one, of the most flourishing and influential in th state.

The following officers and managers were elected for the current year:—

President—Judge A. OSBORN, of Watervliet.
Vice President—Luther Tucker, of Albany.
Secretary—G. I. Van Alen. of Albany
Treasurer—L. G. Ten Eyck, of Bethlehem.

Managers—Albany, Robert Thompson; Berne, Christopher Warren; Bethlehem, Richard Kimmey; Coeymans, Alexander E. Mills; Guilderland. Henry Sloan; Knox, Stephen Marcellus; New Scotland, Joseph Hilton; Rensselaerville. Levi Shaw; Watervliet, Lawrence J. Cobee; Westerlo, Horace E. Robbins.

Wire Worms—their Tenacity of Life.—I have been experimenting a little with wire worms. I took some quick lime and made a paste with it about as thick as cream, and placed six wire worms in it, stirring them in. I went to them in three days expecting to find them dead, but they were as smart as ever, and crawled readily out of the lime. Not being satisfied with this, I procured three or four more, put them in a glass tumbler, and poured on them aqua fortis (nitric acid) enough to cover them. They lived in it about half an hour. The acid affected them only in the mouth, their oily shell protecting them elsewhere. If any of your readers can give anything that will be effectual in destroying them, it will be gladly received in this vicinity. W. E. Vrooman. *Oswego, N Y. Jan.* 4, 1855.

The Crops, &c., in Michigan.—In a business letter, Mr. B. J. Harvey of Salmagundi, Lenawee Co., Mich., writes: "I have resided here 21 years, and I never knew the wheat crop so light as it was last season. I think the average in this county, was not over 6 bushels per acre, occasioned by the ravages of the weevil and other insects. Of corn we had a medium crop; but for the brown grub and wire worm, it would have been large. Fall plowing will destroy the grub, but proves of no avail against the depredations of the wire worms.

There is a great scarcity of farm laborers here, consequently our land is but half tilled. What can one man do on sixty, or, as in some cases, one hundred acres of improvement? Send on your farm laborers, there is room here; but agriculture can never be brought to perfection in the great west, so long as there are good farming lands to be located."

Mr. H. remarks that the wheat now on the ground looks well, but it is already more or less affected with the insect.

Crib Biting, a correspondent of the *Boston Cultivator* thinks, arises from a disordered state of the stomach and loss of appetite. He recommends a mixture of salt and ashes, one part of the former to four of the latter.

American Herd Book.—We have received from Lewis F. Allen, Esq., a circular addressed to short-horn cattle breeders, respecting the publication of a second edition of his American Herd Book. Short-horns are becoming so numerous in this country, that a new Herd book is indispensable, and we hope Mr Allen's proposition will be well seconded by short-horn men, and a second edition issued. We shall publish the circular next week.

The Horticulturist.—The January number of this standard "Journal of Rural Art and Rural Taste," abounds in just such things as every one who has a house and garden should desire to know. We quite agree with its spirited publisher that "the Horticulturist should have a circulation of Twenty Thousand" And if fine engravings of houses, fruits, flowers, &c, neat typographical execution, and above all able, practical, varied and interesting contents offer any attraction to the intelligent portion of our rural and suburban population, he will certainly get it. It is a matter of surprise to us how such an elegant work can be afforded at the low price of $2 per annum to single subscribers, and at $1,50 each, in clubs of four.

The demand for the edition with colored plates was so great last year that it was found impossible since each plate is colored by hand, to get enough to supply orders. The price this year has been raised to $5. in the hope of getting fewer orders. We trust it will prove effectual, as should orders come in too freely we fear our colored copy might be struck off the exchange list, and we would not be without it on any account. Published by James Vick, Jr., Rochester, N. Y.

The Connecticut Valley Farmer.—Of this paper it is sufficient to say that Prof. J. A. Nash, the author of the "Progressive Farmer," and the writer of the interesting letters on English agriculture in the back volumes of the Country Gentleman, is the Editor. Progressive and scientific in its tone and object, it does not mislead its readers by the indiscriminate advocacy of every so-called improvement which mercenary self-styled professors of agricultural science, endeavor to palm off on the farming community; but it tries to winnow the wheat from the chaff,—to prove all things and hold fast that which is good. Published by J. A. Nash, Amherst, Mass. Price $1. a year.

Stone Drains.—On my farm is abundance of stone (principally lime) for building, fencing and ditching purposes. I have built some 800 rods blind ditch, laid with stone, with throat,—cap and small stones on top; all of which continue to work well, although some of them have been laid fifteen years. I have not used tile—and may not until I have used up my surface stone. "Perhaps it is a mistake." Notwithstanding the extreme drouth of the past summer, corn growing on land previously blind ditched suffered but little; it did not curl, and produced a good crop The same effect was seen on a lot of clover pasture, producing a continued and luxuriant growth through the season. R. J. B. *Clifton Spa. N. Y.*

Underdraining Pays.—A correspondent at Lancaster, N. H., writes: "I had a piece of land that was so wet that cattle could not go on to it. I underdrained it, and broke it up late in the fall of 1853, and planted it to potatoes without plowing or a particle of manure. The piece yielded over two hundred bushels per acre, and were sold at 34 cents per bushel without sorting." This is $68 per acre, and doubtless pays the whole expense of draining, cultivation, &c.

Improvement.—There is great room for improvement in agriculture in most parts of our country, and especially in this section of New-York; and being reared upon a farm, and subsequently having had opportunity for pretty extensive observation by home travel, and a somewhat intimate acquaintance of the relations of *Chemistry with Agriculture*, I cannot but feel more and more deeply the importance and even necessity of a higher standard of *practical* knowledge among Farmers. *Excelsior* should be the motto with every farmer throughout our extended domain. J. W. S

Remedy for Caked Bags in Cows.—In the Cultivator a while since, one of your correspondents wished a remedy for caked bag in cows. I have cured a great many cows, by boiling a large handful of coke or garget root, in two gallons water, and after skimming out the roots, when boiled, use one third of the water in a mess with bran, and the three messes have never failed to effect a cure even where the cow gave bloody milk Sewall Sergeant. *Stockbridge, Mass.*

Old Grass Lands.—Some one inquires in an English journal, what the editor would advise him to do in order to improve a field which, for many years, has been used as a hay-field one year, and next year as a pasture. What, especially, is the best top-dressing for old grass land? In reply the editor informs his querist that his system of cutting for hay and grazing alternately is most injurious, and cutting should be abandoned if he wishes to have a valuable meadow for depasturing. As the soil, it may be supposed, is probably impoverished of the phosphate of lime, the editor advises to apply superphosphate of lime at the rate of 4 to 6 cwt. per acre. This may be applied during open weather in Jan. or Feb., and a fall of snow will tend to wash it into the soil. Half a cwt. of nitrate of soda, or sulphate of ammonia, if applied in the end of March or beginning of April, will, it is said, most probably be well repaid by increased produce.

To the above, we would be disposed to add, dragging the field with a harrow having teeth pretty closely set together, then sowing grass seed or a mixture of seeds and then cross dragging.

Supposed Antidote to Potato Disease.—It is certainly true that the result of every inquiry or experiment, which promises to throw any light on the mysterious failure of the potato plant, is worthy of attention. A correspondent of The Mark-Lane Express, acting on the theory that the disease arises from the want of some element in the earth which is necessary to its healthy growth, (a theory, by the way, which perhaps but few will assent to,) and having observed that where the potato was diseased the stalks or vines generally went prematurely to decay, was induced to try the following experiment. He had a plot of land on which he had raised potatoes for three years in succession. Two-thirds of the crop of 1853, were diseased. In the spring of 1854, he planted the half of his plot in the usual way, and the other half had a dressing of silicate of potash, which was neither more nor less than *clinkers*, or half vitrified residuum of coal, adhering to the grates of furnaces. This was ground very fine, and placed in the rows or hills with the ordinary manure. The produce was all sound; the stalks remaining green and strong until the potatoes were taken up. On the other half of the piece, the potatoes were diseased and the stalks or vines decayed early. If any of our readers should repeat this experiment, the public would be gratified by being informed of the result.

English Weights.—We find in the English Farmer's Magazine, the following statement of the different weights of the "stone:"—

"Smithfield, 8 lbs. of 16 oz.; imperial weight, 14 lbs of 16 oz.; common Scotch, 16 lbs of 16 oz.; Glasgow Tron, 16 lbs. of 22 oz.; Ayrshire Tron, 16 lbs. of 24 oz.; Dutch, 17½ lbs. of 16 oz. Nothing is more desirable in Britain than an equalization of weights and measures; the hitherto Legislative acts on the subject are not *compulsory*, and therefore useless for the intended purpose."

The Housewife.

How to Cook Cabbage.

[We give the following mode, which may suit some of our readers, for trial. *Habit* makes the presence of vinegar agreeable, but its disuse might render it as undesirable as it would be on asparagus or cauliflower.]

This vegetable abounds more in muscle-forming material (fibrine) than any other, and it is, in my view, one of the most palatable dishes when properly cooked, that can be served up. The usual mode of cooking cabbage as a boiled dish, with other vegetables and fat meat, and served up saturated with grease and flavored with turnips, beets and carrots, is not only unwholesome but very unpalatable to most people. But many bring themselves to think they like it by adding a little vinegar, (which renders it still more unhealthy) as they do tobacco and many other disagreeable things to an unperverted taste. This is one cause of so much prejudice existing among the majority of people against what is usually denominated a boiled dish.

The manner of cooking the vegetable in question, which I would strongly recommend, is the same as is recommended by Dr. Trall, in one of his works on hydropathy, and is simply this: Boil it entirely by itself in pure water untill cooked perfectly soft, then serve up. When eaten, add butter and salt to your liking. No other seasoning whatever should be used, as pepper and vinegar in most cases tend to weaken the stomach, and corrode the enamel of the teeth. This vegetable cooked in this way, stands unrivalled as an article of human food, and is at once pleasant, nutritious and agreeable, and perfectly agrees with the most sensitive stomach or most inveterate invalid. I would strongly urge it upon your readers to try it, believing since potatoes are so scarce and dear, that if cooked in this way universally, it will soon become a leading article of human food. EPICURE.

Sausage Meat.

After several years experience, I have found the following recipe to be the best for preparing sausage meat of any that I have ever seen.

To 50 lbs. of chopped meat, add
1¼ lbs. of salt,
4 oz. of good black pepper,
14 table spoonfuls of sage.

Hoosick. E. CROSS.

BUCKWHEAT PORRIDGE.—Take one quart of rich, new milk; boil it briskly, and stir in very gradually as much meal as will bring it to the consistence of thick, stiff mush; add one teaspoonful of salt, and one tablespoonful of butter, not more. In five minutes after it has become thick enough, take it from the fire. Serve while hot, and eat with butter and sugar or honey, or with butter and molasses.

OYSTER FRITTERS.—Strain a quantity of fresh oysters over liquor, and form a thin batter, with a couple of eggs and some fine family flour. Stir the oysters in, and heat some butter and good lard, *hot*, in a suitable dish, and put in the fritters. Fry, till it is well browned, and in turning, be careful not to break them.

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THE SUBJECTS TREATED IN THIS VOLUME embrace—

I. CALENDAR PAGES for the year 1855, calculated for the meridians of Boston, New-York, Baltimore and San Francisco.

II. COUNTRY DWELLINGS—including Designs for a Symmetrical Farm-House—an Italian Country House—a Cheap Farm-House—Working-men's Cottages, and Directions for Improving old Houses—with TEN ENGRAVINGS.

III. IMPROVING AND PLANTING GROUNDS—Flower Gardens—Geometric and Natural Planting—Form of Trees—Supports for Climbers—the whole illustrated with TWENTY-ONE ENGRAVINGS.

IV. THE CULTURE OF FRUIT—Preparation of the Soil—Draining—Distances and Laying out the Ground—Transplanting--Its Proper Season—After Management—Cultivation of the Soil—Pruning—Grafting—Budding—Diseases and Enemies of Fruits—List of the Best Sorts. This department is illustrated by FORTY FIGURES.

V FARM BUILDINGS—Plan of Barn and Stables—Of Piggery—Of Poultry House—Of Ashery and Smoke House—Construction of Cisterns.—with ELEVEN ILLUSTRATIONS.

VI. FARM IMPLEMENTS, &c.—Mowers and Reapers—Machines to Pulverize the Soil—Wind Mills—Stump Machines—Feeding Troughs—Painting Implements—with NINETEEN ILLUSTRATIONS.

VII. IMPROVEMENT IN ANIMALS—Cattle—Horses Sheep—Swine—Terms denoting External Parts of Animals—Heaves in Horses—with SEVENTEEN ILLUSTRATIONS.

VIII. FARM ECONOMY—Improved Farm Management—Rotation of Crops—Laying out Farms, with THREE ILLUSTRATIONS—How Young Farmers may Practice Economy—Plans Laid in Winter—Construction of Lightning Rods—Fruit Drying.

IX. MISCELLANEOUS MATTERS—Embracing a great variety of valuable Hints and Suggestions for the Farmer, Gardener and Housekeeper.

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It will be seen from this abstract of the contents of the *Illustrated Annual Register*, that it has been prepared with special regard to the wants of our rural population, and we hazard little in saying that it will afford more valuable information on several of the subjects of which it treats, than has ever before been presented at so small a cost. The chapters on Country Dwellings—Improving and Planting Grounds, and the Culture of Fruit, have been prepared by Mr. J. J. THOMAS, with his usual taste and ability, expressly for this work, and are each well worth more than its cost.

This number of the Annual Register is intended as the first of a series, to be issued annually at or near the close of each year. Filled as they will be mainly with matter of permanent interest, they will form a series which no man, having a farm or garden, or hopes of future retirement to rural scenes, should be without.

Address orders for single copies, or applications for terms at wholesale, to LUTHER TUCKER,
Albany, N. Y.

THOMAS GOULD,
BREEDER OF
Durham and Devon Cattle, Leicester Sheep,
SUFFOLK SWINE,
MADAGASCAR, OR LOP-EARED RABBITS,
ENGLISH FERRETS, GUINEA PIGS,
CHOICE AND FANCY POULTRY,
Aurora, Cayuga Co., N. Y.
Jan. 18—w&mtf.

THE HORTICULTURIST,

And Journal of Rural Art and Rural Taste.

THE HORTICULTURIST is a Monthly Journal, devoted to HORTICULTURE and its kindred ARTS, RURAL ARCHITECTURE, and LANDSCAPE GARDENING. It is edited by P. BARRY, the author of that popular work, *The Fruit Garden*, and for many years the Horticultural Editor of the *Genesee Farmer*. Mr. BARRY is universally acknowledged to be one of the best Pomologists in the world, and eminently fitted for this responsible station. He is aided by the best Horticulturist in the country.

ITS SIZE AND APPEARANCE.

THE HORTICULTURIST is a Magazine of forty-eight pages, without advertisements; and when Nursery and other advertisements are inserted, it is on a separate sheet, which can readily be removed before binding. It is printed on beautiful clear type, and on the finest paper. and ITS ILLUSTRATIONS ARE SUPERB, BOTH ON WOOD AND STONE. It is stitched in a neat and appropriate cover, and makes a volume at the end of the year of nearly 600 pages. Each number, in addition to numerous Wood Engravings, contains a *Frontispiece on Stone*, of some fine *Fruit or Flower drawn and engraved from nature*, by the very best living artists. These plates alone are worth more to every Fruit Grower than the cost of the work, enabling every one to judge not only of the appearance but of the character of each as every plate is accompanied with full and correct descriptions. In addition to these are fine Elegant DESIGNS FOR COTTAGES, COUNTRY SEATS, SUMMER HOUSES, ARBORS, RUSTIC BRIDGES. In short, nothing escapes notice that can make a Country Home pleasant and beautiful While the *Horticulturist* is at least in appearance equal to any work published in the country, the publisher has the satistion of knowing that the best Pomologists and the Press both in this country and in Europe pronounce the HORTICULTURIST AND JOURNAL OF RURAL ART AND RURAL TASTE to be the *best Horticultural Journal in the world.*

Still further to add to the value of the work, and meet the improving taste and increasing wants of the Horticultural community, we also publish an edition with COLORED PLATES, each number containing a full page engraving of some new, rare and valuable fruit or flower, correctly colored from nature by the best living artists in this line.

ARRANGEMENT.

The first twenty or thirty pages of this work is occupied with valuable papers by the Editor and correspondents—Then follow some six or eight pages of FOREIGN NOTICES, containing everything new and important in European Horticulture for the past month. Ten or twelve pages of EDITOR'S TABLE closes the number; and to the learner this department is a very valuable part of the work, as it contains simple and invaluable directions for the uninitiated to almost every department of GARDENING, given in answer to numerous inquiries.

TERMS—Two Dollars per year. With Colored Plates, Five Dollars. A new Volume commences with the January number.

Agents are allowed 25 per cent. commission from our regular terms. The same commission to CLUBS of FOUR or more, making the price of plain Edition only $1,50 to Clubs and Agents—and this for one of the most beautiful Magazine published.

☞ Specimem numbers sent free to all who wish to examine the work or obtain subscribers. Postmasters, Nurseryman, Fruit-growers, all who love FRUITS and all who love FLOWERS, all who would love to see "the wilderness blossom as the rose." are requested to act as Agents. ☜

Address JAMES VICK, Jr, Rochester, N. Y.
Jan. 4—w1tm1t

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Warehouse and Seed Store, 369 *and* 371 *Broadway, Albany.*

THE subscriber having purchased the stock in trade of the above works, is now prepared to furnish to order a full assortment of Farm Implements and Machines adapted to all sections of the country, both north and south, among which may be found—

"*Emery's Patent Changeable Railroad Horse Powers.*"
Overshot Threshing Machines with Separators.
Mowing and Reaping Machines.
Grist-mills, Corn-shellers and Clover-hullers.
Circular and Cross-cut Saw-mills, adapted to the horse power, for cutting fire wood and fence stuff. with a full and complete assortment of FIELD AND GARDEN SEEDS and FERTILIZERS. For further particulars, full Catalogue will be sent on application by mail.

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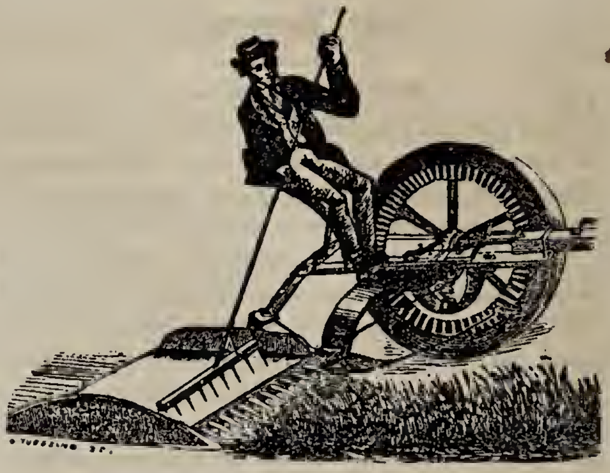
Successor to Emery & Co
March 30—w&mtf



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WITH REAPER ATTACHMENT,

Manufactured by HOWARD & Co., Buffalo, N. Y.

KETCHUM'S celebrated Mowing Machine, has been improved by the addition of a *Reaper Attachment*, and we now offer it as a Mower, or as a Mower and Reaper combined, with full confidence that it is the most perfect and successful Machine now in use. The change from a Mower to a Reaper (which means has been patented,) is effected by simply enlarging the main-wheel, by circular sections, bolted to the rim of the wheel. Some of the advantages obtained by this arrangement are—*First*—Raising the cutters sufficiently high for cutting grain. *Second*—Lessening the motion of the knives, *without any change of gearing*, which is very desirable in cutting grain.as much less motion is required. *Third*—Reducing the draft of the Machine at least *one-third*. *Fourth*—Raising the cogs of the driving-wheel, thereby preventing them being filled with dirt, as they otherwise would be, on stubble land. *Fifth*—Attaining the above named objects *without the least change* of any part of the Mower. We shall build for the harvest of 1855 the Combined Machines, with *wrought iron frames and finger bars*. Those manufactured expressly for mowing will *all* have *wrought iron finger bars*, but a portion of them with wood frames. Each Machine will have a good spring seat, and every part made in the most substantial manner, and warranted durable. with proper care. We have reduced the weight of the Mower about one hundred and fifty pounds, which we have found desirable, and have no doubt will improve them, by *lessening their draft.* We shall take the utmost pains to have our knives made of the best of steel. and *well tempered.*

We offer our Machines, and warrant them capable of cutting and spreading from ten to fifteen acres of *any kind of grass* per day; also warrant them capable of cutting the same amount of grain per day.

RUGGLES, NOURSE, MASON & Co., of Worcester, Mass., are manufacturing. and have the *exclusive* right to sell in the N. E. States. They are also manufacturing a *one horse* Mower, which they have a right to sell in any of the United States except the Western.

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THIS celebrated fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian guano, in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of *phosphate*, which is often the case. All crops are benefited by its application It is composed of ground bones, decomposed by sulphuric acid, to which is added a due proportion of Peruvian guano, sulphate of ammonia, &c.

For sale, with *full* directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT, Ag't for manufacturer,
5 Commercial, cor. of Chatham st., Boston.
Feb. 16, 1854—w&mtf

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Imported on commission by Messrs. THOS. BETTS BROS., Bishop's Stratford, Herts, England — 81 Maiden Lane, New-York City.

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
Short-Horned Cattle,
Devons, Herefords, Ayrshires,
Alderney Cows from Islands of Alderney and Guernsey,
Pure bred Southdown Sheep,
Hampshire Sheep,
Cotswold, Leicester do
Suffolk Pigs,
Essex, Berkshire do
Merino Sheep from Spain,
Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane
Jan. 4—1am—m1y. New York City.

PURE BRED FOWLS.

THE subscriber has for sale—
Brahma Pootra Fowls.
White Shanghae "
"Palmer" do "
Imperial Chinese "
Hong Kong "
Wild Indian Mountain do—

Bred from selected stock, and warranted pure. Boxed and sent by Express to any part of the Union.

Apply to WILLIAM B. SMYTH,
Dec. 21—w3t—m3t New-Britain, Conn

IMPROVED SHORT-HORNS.

DURHAM Bull and Heifer Calves, descended from the herds of Mr. Bates and his nephew Mr. Bell, for sale.

HERMAN WENDELL, M. D.
Nov. 23—wtf Albany.

PURE BLOOD DEVONS.

SANCHO, 2 years old last spring—awarded premium at State fair in 1853.

Stately, 10 years old—Beautiful figure.

Sancho the 2d, 8 months old.

Also 4 Pure Blooded French Merino Ewes.

The Devons are from Mr. R. H. Van Rensselaer's of Morris, Otsego Co., N. Y. The French Merinoes from A. L. Binghamt's, Vt The best of references can be given for the above—also their proper Pedigree.

PELEG WEEDEN.
Jan. 4—wtf Preston Hollow, Albany Co., N. Y.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

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THE subscriber who has had several years careful experience in breeding fowls, has a few choice pairs to sell, at reasonable prices, of the following varieties, viz: Grey, Black, Buff and White, Shanghai—Silver and Golden Poland, Black Spanish, Bolton Grey, or Silver Hamburg, Santa Anna Hen Feather Game, Java and African Bantams, and Superior African Geese. Also choice Black and Tan Terrier Dogs.

E. E. PLATT.
Nov. 9, 1854—w&mtf. Albany.

Ditch Diggers, Tile and Brick Machines,

Manufactured by PRATT & BROS., Canandaigua, N. Y.

THE Ditch Digger and Tile Machine were constructed to cheapen and extend Drainage. Ditches must be made cheaper and faster, and Tile must be made easily, simply and extensively. The Farmer feels it and agriculture demands it: and we beg leave to say to all interested, that these machines will accomplish the object.

We warrant our Ditch Digger to be capable of cutting from fifty to 150 rods of Ditch in a day, by the use of one man and two horses, not less than 2½ feet deep; and that this implement is made in a thorough and workmanlike manner.

We warrant our Tile Machine to be capable of making from tempered clay, 10 to 15.000 Tile or Brick in a day, by the use of two horses—grinding the mud and making the Tile or Brick at the same time and by the same operation—using steam or water power with equal facility.

This Tile Machine enables Brick makers to make Tile and Tile makers to make Brick, changing from one to the other in less than 5 minutes, and the cost of the Machine is no more than those in ordinary use, it being the simplest arrangement known. The quality of Brick made, is but a little inferior to pressed Brick.

Farmers, if you want Tile made cheap and near you, see yourselves that it is done. See to it that *some one* gets a machine and makes them. Farmers, if you want Ditches made quickly and cheaply, buy a Ditch Digger, or find a man that will do it. Farmers and others, if you want to see these machines at work, come when frost has disappeared and see them. We shall be ready, and take pleasure in showing them to you.

Brick makers, do you want to change your business for the better? Then make Tile and better Brick, and you will be the gainer, and agriculture accommodated. We have a large number of Tile Dies from which to select.

Dealers in Agricultural Implements, we will supply you on favorable terms. Persons wanting exclusive Patent privileges, we will negociate with you. All, wanting any further information, will please address PRATT & BROS
Dec. 21—w&mtf. Canandaigua, N. Y

THREE

Valuable and Highly Cultivated Farms

FOR SALE.

THE subscriber offers at private sale three most desirable Farms, situate in the vicinity of Newark, Licking County, Ohio, to-wit:—

1st. His CHERRY VALLEY FARM, on the old Columbus road, two miles west of Newark, containing two hundred acres, one hundred and forty of which are cleared. On this farm are two large young orchards, two large new frame houses, a smoke house, barn, new stable for fifty horses, sheds, chicken houses, hog pens, etc.; a large garden handsomely fenced in, and indeed every convenience and even luxury that can be desirable on a farm. This farm is in the highest state of cultivation, no labor or expense having been spared to render it a model farm in this, as in all other particulars.

2d. His RICHLAND FARM, also known as the Taylor or Fullerton Farm, situate on the road to Hebron and also on the Ohio Canal, two miles from Newark, and containing 139 acres, (100 of which are cleared) There is a good log house and stable on this farm, which is in a high state of cultivation and cannot be surpassed for fertility.

3d. His ENGLISH FARM, situated on Ramp Creek on one of the roads to Hebron, four miles from Newark, and containing 133 acres, about 80 of which are cleared On this farm are two small old frame houses, a large frame barn, a new saw-mill, and corn cracker and crusher. This farm is also in a highly cultivated state.

Also, a number of OUT LOTS, of every size, for sale.

Persons desirous of purchasing a good farm, in admirable order, will find it to their advantage to call on the subscriber at his house in Newark, Ohio, where he can be seen at all times.

Time will be given to the purchaser if desired, and possession on the first day of April, 1855. N. B. HOGG.
Nov. 23, 1854—w&m3m. Newark, Ohio.

Fertilizers.

BEST Peruvian Guano—
Super-Phosphate of Lime, "DeBurg's No. 1"—
Poudrette, of the best quality—
Ground Plaster, suitable for agricultural purposes—
Ground Bone, Bone Dust, and Burnt Bone.

Also, Grass Seeds of reliable quality, at the lowest market price. GEO. DAVENPORT, 5 Commercial,
Feb. 9, 1851—w&mtf cor. of Chatham st., Boston.

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Lawton Blackberry Plants.

C. M. SAXTON, 152 *Fulton St., New York.* Agent for Wm. Lawton, will receive orders for *Plants.* *The Plants will be put up in boxes* in good shipping order, and will be ready to deliver in March.

As our supply is limited, we shall keep a *Register* of *orders* and they will be sent in the order received.

Price *ten Dollars* per doz. The money must accompany the order. Address C. M SAXTON,
Dec. 28—w2t—m2t. 152 Fulton-St., New-York.

PURE BLOOD DEVONS.

SANCHO, 2 years old last spring—awarded premium at State fair in 1853.

Stately, 10 years old—Beautiful figure.

Sancho the 2d, 8 months old.

Also 4 Pure Blooded French Merino Ewes.

The Devons are from Mr. R. H Van Rensselaer's of Morris, Otsego Co., N. Y. The French Merinoes from A. L. Binghamt's, Vt The best of references can be given for the above—also their proper Pedigree.

PELEG WEEDEN.
Jan. 4—wtf Preston Hollow, Albany Co., N. Y.

PURE BONE DUST,

COARSE and Fine, forwarded in quantities to suit purchasers. Order by mail or otherwise.

THOMAS COULSON,
Sept. 14—wtf 590 Bowery, Albany, N. Y.

DELL & COLLINS,

Waterloo, Seneca Co, N. Y.,

INVITE the attention of Nurserymen, Dealers, Amateurs and Fruit Growers in general, to their stock of

FRUIT AND ORNAMENTAL TREES,

Embracing all the most hardy and valuable kinds for general cultvation. They would especially call the attention of the Fruit-grower, to their large stock of PEAR TREES, which for *good* quality and *low price*, they believe to be unrivalled. Also a general assortment of Fruits, from the Apple to the Strawberry.

A leading feature of their Nursery, is the cultivation of a great variety of NATIVE ORNAMENTAL TREES, both deciduous and evergreen. Without rejecting foreign trees, their main object has been to present as great a variety of the *beautiful trees* of our own country, as the taste of the most refined Amateur could desire: to accomplish which they have made, and are still making extensive Botanical researches. They have now on hand about 20,000 American Arborvitæ, one and two years transplanted, 6 in to 2 feet high, which will be sold low for cash, at wholesale or retail. Also *Balsam Fir, Spruce,* &c., from 6 in. to 6 feet; and a great variety of native Forest Trees, to which they expect to make great additions next season. Orders are respectfully solicited. Dec. 30—w3t—m3t.

Desirable Nursery Establishment

FOR SALE.

THE undersigned having other business arrangements in view, offer for sale the business and Establishment of the

Highland Nurseries, Syracuse, N. Y.

The Stock is quite extensive, and very good. It comprises every desirable variety of the Standard Fruits, and Hardy Fancy Stock, in every stage of growth, from saleable Trees to a large quantity of Fruit Seeds planted this Fall—with a well established business, and arrangements which may easily be completed for its indefinite extension.

From thirty to seventy-five acres of land, admirably adapted by location and soil for the business, will be sold or rented as may be desired by the purchasers of the Stock, on the most favorable terms.

Few or no Establishments in the State of its age, have a better reputation, or a more rapidly increasing business, and there is no better location than Syracuse, for conducting and extending it.

The *whole* will be sold at a bargain, and if not disposed of sooner, the stock will be sold in parcels on the opening of the Spring Trade.

Further particulars will be given on application to
BARNES, PHELPS & PUTNAM,
Jan. 5—w1tm2t. *Highland Nurseries, Syracuse, N. Y.*

FARMERS AND GARDENERS

WHO cannot get manure enough, will find a cheap and powerful substitute in the IMPROVED POUDRETTE made by the subscribers. The small quantity used, the ease with which it is applied, and the powerful stimulus it gives to vegetation, render it the cheapest and best manure in the world. It causes plants to come up quicker, to grow faster, to yield heavier and ripen earlier than any other manure in the world, and unlike other fertilizers, it can be brought in direct contact with the plant. Three dollars worth is sufficient to manure an acre of corn. Price, delivered free of cartage or package on board of vessel or railroad in New-York city, $1.50 per barrel, for any quantity over six barrels; 1 barrel, $2; 2 barrels, $3.50; 3 barrels, $5.00; 5 barrels, $8.00. A pamphlet with information and directions will be sent gratis and post-paid, to any one applying for the same.

Address, the LODI MANUFACTURING COMPANY,
74 Cortlandt Street, New-York.

Watertown, Mass, Oct. 19, 1854.

Lodi Manufacturing Company:

Gentlemen—at the request of John P. Cushing, Esq. of this place, I have, for the last five years, purchased from you 200 barrels of Poudrette per annum, which he has used upon his extensive and celebrated garden in this town. He gives it altogether the preference over every artificial manure, (Guano not excepted,) speaks of it in the highest terms as a manure for the kitchen garden, especially for potatoes.

I am, gentlemen, very respectfully,
Your obedient servant,
Jan. 18—w1am4t—m4t Benjamin Dana.

Agricultural Books,

For sale at the office of the Country Gentleman.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. III. ALBANY, MARCH, 1855. NO. III.

The Annual Meeting of the N. Y. State Ag. Society.

The Society met in the Assembly Chamber at 12 o'clock, M., Wednesday, Feb. 14, and was called to order by the President, WILLIAM KELLY, Esq., of Rhinebeck, who congratulated the Society upon the large attendance present, and expressed the hope that the deliberations of the meeting would result in the best good of the Society.

On behalf of the Executive Committee, B. P. JOHNSON, the Secretary, read an interesting report, reviewing the doings of the Society during the year, and referring to the injury sustained from drouth, the wheat fly, &c. Underdraining, irrigation, artificial manures, and other modes of improving the agriculture of the state were alluded to. The Treasurer's report showed that the receipts during the year (including the balance on hand) were $222 96.13, the expenditures $19.723.-77, leaving on hand $2.572.36. The reports were accepted and adopted.

At the last annual meeting, AMBROSE STEVENS gave notice of a proposition to amend the Constitution of the Society with a view to holding the fairs permanently in one or more places for a term of years. Mr. CLARK moved that this mendment to the Constitution be adopted, to take effect after the year 1855. An animated discussion ensued. The motion was lost—ayes 63—noes 107.

Mr. HALL of Onondaga, moved the appointment of the usual committee of 24—three from each Judicial District—to report the names of Officers for the ensuing year, and to recommend a place for holding the next annual Fair. Agreed to.

The vote in this committee, for location of the fair, was as follows, Utica 13; Elmira 10; Watertown, 1. The Committee recommended that the place having the highest vote should be selected, if the requisite bonds be furnished—if not, then the place having the next highest, and so on. They also recommended the following officers for the ensuing year:

President—Judge SAMUEL CHEEVER, of Saratoga.

Vice Presidents—JOHN C. JACKSON, ISAAC E. HAVILAND, GEORGE VAIL, JOHN MCDONALD, JOHN A. SHERMAN, S. P. CHAPMAN, D. C. VAN SLYCK, W. W. WEED.

Executive Committee—Additional Members—T. S. FAXTON, S. G. FAILE, CHARLES MORRILL, ANTHONY VAN BERGEN. W. C. WATSON.

Corresponding Secretary—B P. JOHNSON.

Recording Secretary—LUTHER TUCKER.

Treasurer—B. B. KIRTLAND.

The Hon. A. B. DICKNISON moved to substitute Elmira for Utica as the place for holding the Fair. Messrs. BALDWIN, MORRILL, TOMPKINS & PETERS sustained this change, and Mr. HALL opposed it. The vote was taken on the question, and resulted in favor of Mr. DICKINSON'S amendment, ayes 107—noes 80. *Elmira, therefore, is chosen as the place for holding the next Annual Fair.*

The report of the committee in regard to officers was adopted; and the gentlemen named were unanimously elected.

In the evening Dr. FITCH delivered a lecture on the Entomology of the state, which was listened to by a large and interested audience.

On Thursday evening Prof. CARR delivered an interesting lecture on Chemistry. The closing address of the President followed. It was able, eloquent and practical, and though late in the evening was listened to with great interest. Mr. KELLY then introduced Judge CHEEVER the President elect, who made a few appropriate remarks. A vote of thanks was then passed to Prof. CARR and Mr. KELLY and a resolution unanimously passed recommending the legislature to continue the appropriation of $1000 per anum to Dr. Fitch for entomological investigations.

The show of fat cattle and sheep was not large, owing in part to delays on the railroads. There was, however, some very excellent animals exhibited. The Cotswold sheep of E. Gazley, Clinton, Duchess Co., were much admired. Three Leicester ewes, shown by E. W. Cady, Dryden, particularly pleased us. Mr. C. also showed a half bred Leicester and common Merino, which proved that this cross makes a valuable sheep for the butcher. A six year old steer weighing about 3,500 lbs. belonging to JOHN LEE, Cambridge, Washington county, was a prominent feature of the show yard. The show of pigs was small.

At the Agricultural Hall the show of winter fruits, grains, vegetables, meats and poultry, though not large was excellent in quality. E. S. HAYWARD, Brighton, Monroe Co., N. Y., showed a fine collection of apples, consisting of 26 varieties. WM DAVIDSON, Hartwick, Otsego Co., 32 varieties. J. H. WATTS of Rochester, exhibited 14 varieties, amongst them some very fine specimens of the Northern Spy. O. HOWLAND, Auburn, showed five bushels of two rowed barley, and five bushels of four rowed, which we believe weighed 54 lbs. per bushel. It is the finest barley we recollect to have seen in this country. D. CONRADT showed five bushels of Tea spring wheat, of excellent quality. J. H. ZIMMERMAN of Pamelia, Jefferson Co., showed five bushels of what he termed Magnum Bonum wheat, a spring variety, a single ear of which he found some few years since in a field of wheat, and which he has cultivated with great success. He sold it at *fifty cents a quart*, and we believe disposed of the whole five bushels. We are very far from wishing to do Mr. ZIMMERMAN an injustice, but we cannot but express our conviction that this is the same variety as that known as the Mummy wheat, and which has been cultivated for some years in various parts of the country. It is figured in LOUDON'S Encyclopœdia, under the name of Egyptian or many-spiked wheat (*T. compositum.*) It is cultivated in some places in England and is "*in little estimation.*" LOUDON calls it a *winter variety.*

Ditching or Blind Draining.

MESSRS. EDITORS—I have been practicing some, and thinking much of late, on the subject of ditching, or blind draining, as we term it here. High manuring, rotation of crops, deep and thorough plowing, and subsoiling, are all good in their places. But first of all, in my opinion, as far as practicable, the land should be drained. It is almost useless to subsoil our tenacious lands without it, as that has already been done more thoroughly by the frosts of winter, than it is possible for us to do with any implement now in use; still we find them settling into a state, as impervious to roots, air, or water, as ever.

A systematic course of draining would be impracticable and useless, on most of my farm. Its foundation being rolling, composed of ridges of clay loam, interspersed with swales of black muck, more or less springy, resting upon a hard-pan subsoil. In these swales I dig my ditches, following their natural course, throwing out occasionally lateral ones to reach springy spots, or as the nature of the land seems to require. I dig my ditches thirty to thirty-six inches deep, (I prefer the latter) by fifteen at bottom, the sides nearly perpendicular. I lay them wholly of stone, in which, in some particulars, I differ from any mode I have ever seen adopted. I commence by flagging the bottom with refuse stone, ¾ to one inch thich, obtained from a limestone quarry on my farm. I then lay a tier on either side, of hard-heads of the dimensions requisite for leaving an open throat when capped, of 4 to 5 inches square; next, cap the whole with flat stones from the quarry, of sufficient strength to insure against breaking, covering the joinings with thin scales to prevent the soil from washing in. A man will lay of this part, 10 to 12 rods per day. An ordinary load of the flat stone will lay 4 to 5 rods. I then fill the ditch to within one foot of the surface, with small round stone picked from the field, and shoveled directly from the wagon into the ditch, taking care to throw the largest at the bottom. Next cover with a thin layer of straw, weeds or brush; then with the shovel throw on about three inches of the hard-pan earth. I prefer this to inverted sods, which, when they decompose, I think will be liable to fall in, and partially fill the ditch. Next with team and scraper cover the whole, beginning at one end, turning the team over the finished part to reload, leveling it down and leaving it in fine condition. A man, team, and boy to drive, will cover 50 to 60 rods per day.

I am satisfied that such ditches in such locations, "will pay." But I have some land, I must confess I am skeptical as regards the propriety of attempting to drain; land, the subsoil of which is so tenacious that water will stand in a "foot print" apparently until it evaporates. I have improved it much by deep plowing, mixing the surface with the subsoil, but this is not all it seems to need. Can such land (the like of which there is much about here) *be blind drained?* C. *Amsterdam, Montgomery Co., N. Y.*

REMARKS.—There can be no doubt that such land can be underdrained. The most sterile and impervious clay soil we ever saw, lying nearly on a dead level, was thoroughly drained, and rendered highly productive, by cutting drains 3½ feet deep, and 16 feet apart, and laying them with inch and a half bore draining pipes. The clay, thrown out of the drain, was shoveled in again on to the tiles, without stones, straw, sod, or anything to cover them, and yet the water found its way through. We saw a somewhat similar instance near Rochester, this past season. In the fall of 1853, a drain was cut through a stiff clay soil, which, it was thought by the practical farmers in the neighborhood, could never be *under*-drained, so impervious did it appear. The drain was cut about 3 feet deep and eighteen inches wide, and laid with stones. It worked well, discharged a large quantity of water, and drained the land on each side of it, three or four rods as was manifest from the greatly increased luxuriance of the wheat. The owner is satisfied, not only that such land *can be* underdrained, but also that it will pay to do it. We might also mention that, from actual experiment, he has come to the conclusion that tiles are cheaper than stones, since the drain need not be more than half the width, and there is less trouble in laying them.

Lightning Rods.

Intending to put up lightning rods, I was pleased with the directions in the June No.; since then, some writers claim that iron is not sufficient, but that a copper strap with serrated edges, is much more safe, and about as cheap. Is it so or not? Would not a strap (unless so heavy as to be quite expensive,) be liable to melt? Would steel points be better than iron? A word or two in reply would be very gratefully received. P. P.

In ordinary cases, a sharp point brings down the electricity from a charged cloud, silently and gradually, in the same way that the point of a penknife held in the hand towards a heavily charged conductor of an electric machine, will discharge the whole insensibly and without any explosion. In such a case as this, a small rod will be sufficient. But when an explosion (from a suddenly and very heavily charged cloud) takes place, from the insufficiency of the rod to draw it off as stated, and the rod becomes an accidental channel through which the explosion passes, a small rod may be melted, or if not melted, it may not carry down all the electric fluid. For being intensely filled with it at this moment, the fluid tends to escape in all directions from the rod, and seeks other channels, thus causing great danger to the building or other objects near at hand. Hence, the larger the rod, the safer it will be, and the less will be the danger of the fluid being diverted from it. Three fourths of an inch in diameter is a good size.

A *serrated* edge (except near the point) by presenting a point at each serrature, only increases the tendency of the fluid to escape from the rod—consequently we could not recommend the copper strap described by our correspondent. It would no doubt, however, form a good underground-termination, and assist in the dissipation of the electricity.

As the electric fluid exists only at the *surface* of conducting bodies, an extension of surface without lessening the quantity of metal used, would doubtless increase she efficiency of rods. Hence, a flat bar would probably be better than a round rod of equal weight. A *smooth* copper strap might prove valuable—copper is a better conductor than iron, but whether as much better as its increased price, is quite doubtful. We shall resume this subject in another number.

MORE GOOD HOGS.—A correspondent writes that Mr. ELIZUR DOWD, of Norfolk, Ct., recently butchered two pigs, a few days over nine months old, which weighed 686 lbs.—one weighed 360 lbs.

Economical Culture of Potatoes.

Messrs. Editors—I have been a reader of the Country Gentleman and the Cultivator since the publication of the first number, and consider myself, much benefited by them. As I have been profited, I am willing to contribute my mite for the benefit of others. In the Country Gentleman of the 11th inst. C. Blakely inquires the process of raising potatoes, from those extensively engaged in the business. I am not one of them, but I raise a few acres of potatoes every year, and I will tell you *how I do it.* Take land that has been tilled the year before; it should not be *very* stony; manure or not in the spring, as you please. Plow the ground thoroughly, and harrow smooth. I then commence on one side of the lot, and make four straight marks across the lot with a plow, about 32 inches apart keeping the plow as near the top of the ground as possible on wettish land, and not more than 3 or 4 inches deep on dry land. I then set two men or boys dropping the potatoes in these marks, about 10 to 12 inches apart. I cover the potatoes with the plow going one way, and make a mark coming back, continuing to do so until I get across the field. I make three rows across the ends or headlands, finishing them in the same way. I let them remain until *nearly* time for them to come up, but *before* they come out of the ground, take a brush harrow, (I usually use a tree top) and harrow the ground over lengthwise of the rows; this checks the weeds, which will start before the potatoes, unless the land be *very clean.* When the potatoes get to be some 6 or 8 inches high, I go through them with one horse and plow twice in a row turning a furrow each way, and they are done, until digging time. If the season should be wet, and weeds grow too fast for the potatoes, I might go through them again with the plow, but have never done so.

I also dig them with a plow, taking each alternate row, and picking them up as fast as dug; and it will pay when the price of potatoes are as high as they are now, to take potato hooks and hoe over the ground; but when they were not worth more than 12½ or 18¾ cents per bushel I used to pick up what we could find, and harrow over the ground, then pick up again, and leave the rest for the store pigs. I have in this way raised 315 bushels on one acre, *but not last year.* I have been inquired of in my way of digging, if I get them all? My answer is, I get enough. I do not think I can raise more bushels per acre this way, than by hand, but can do it for less expense per bushel. It is the hand labor that costs the money. The rows should be made north and south, where the land will admit of it. E. B.

P. S. By the way I have not told you all I know about potatoes:

Sure Cure for the Potatoe Rot.—Some few years since my neighbors were complaining that theirs were rotting badly. I looked at mine, thought they were good, and had them put in my cellar. They had not been there many days, when the strong smell from the cellar, induced me to examine them, I found they were rotting. I had them taken out and laid on the ground. The night after was severe *cold,* and they froze up *solid.* That stopped the rot *entirely.* I then covered them carefully to keep them from thawing. I boiled them during the winter as occasion required. My hogs and cattle did well on them, I think I may say without fear of contradiction, that *boiling or freezing potatoes will stop the rot.* E. B. *Plattsburgh, N. Y.*

Saw-Dust for Stables.

By placing a scaffold under the saws of saw-mils, large quantities of saw-dust may be procured, and opportunities often occur of obtaining it from other wood-sawing machines. In some respects it constitutes an admirable material for littering stables, and it is the more valuable this winter on account of the scarcity of straw or its value for food. It possesses one great advantage over straw-litter, in the character of the manure it forms, being entirely free from the coarse and fibrous texture which renders "long manure" so difficult to spread well, or intermix thoroughly with the soil. Manure mixed with saw-dust-litter only, possesses all the strength and power of fresh manure, with none of its peculiar disadvantages. When made from most kinds of wood, saw-dust, from its pulverization, will decay in a single season; the more durable kinds of wood will remain much longer, and these are therefore admirably adapted for loosening heavy soils, by keeping them more open, and rendering them more absorbent—possessing this advantage over an intermixture of sand, that it carries the absorbed fertility into the earth with it, which sand cannot do, although the latter forms a more durable constituent of porosity.

We observe that Dr. Dadd, in a recent tour in the western states, notices the use of saw-dust for the purpose of littering horse stables in some of the western cities, where, independently of its economy, it is regarded as far superior to any other material. The large quantities of liquid manure which it absorbs, renders it a drier bedding, at the same time less of the peculiar gas of badly littered stables escapes from it into the air. Dr. Dadd however, makes one objection,—the injury it may do to horse's feet, by rendering them dry and brittle, on account of its absorbent properties. We can see no force in this objection. Saw-dust absorbs more water than an equal bulk of straw, not on account of any chemical or inherent property it possesses of abstracting water, like quicklime for instance; but solely from its greater *mechanical* porosity. Its absorbent powers are precisely like those of a sponge. When the liquid is already free and separate, either saw-dust or a sponge will suck it in in a moment; but they cannot withdraw it from the still finer pores of a horse's foot. A dry sponge placed in contact with the hand will not produce that dry and parched feeling caused by the presence of powdered quicklime, for the *coarse* capillary pores of the sponge cannot abstract moisture from the *fine* capillary pores of the hand. Hence a sponge cannot render the skin of the hand drier, nor a bed of saw-dust render the hoof of a horse drier, although both may remove from the surface any moisture from perspiration or other cause, which has been *already* deposited there.

Scioto Valley and New England Soils.

In the Country Gentleman of Jan. 4., we had a short and hastily written article on the "Pulverization of tho Soil," the object of which was to show tho importance of thorough tillage as a means of rendering available the food of plants lying dormant in the soil. As illustrating the advantages of a judicious pulverization of the soil, we mentioned that "Dr. Wells of Cambridge, found that the soils of the Scioto valley in Ohio, which have long been noted for their extraordinary fertility, contained a no larger proportion of the elements of plants than the comparatively sterile soils of New England. So far as chemical composition was concerned, one soil was just as good as the other, the only difference being that the rich Scioto valley soil was composed of *finer particles* than that of Massachusetts."

The *Ohio Cultivator* has a leading article in reference to to this "singular paragraph" which it says is "contrary to *truth* and reason," and "different from the statement of Prof. Wells." It attempts to prove the statement "contrary to truth" as follows:

> Prof. Wells did not say that the Scioto valley soils contained no larger proportion of the elements of plants than the soils of New England, nor that the only difference between them was the finer particles of the former; but simply that the inorganic (or mineral) constituents of the two were nearly alike, and hence the difference in fertility was to be attributed to *the amount and condition of the organic matter*, (the vegetable mould—carbon, nitrogen, ammonia, &c.,) in Scioto soils, and the fineness of their particles."

This appears to us rather a curious method of reasoning. We stated that Dr. Wells' *analyses showed* the soil of the Scioto valley to contain no larger a proportion of the food of plants than the soil of New England. The *Cultivator* says this is "contrary to truth." Why? Because "Prof. Wells did not *say*" so and so.

The analyses to which we referred were of a soil from Palmer, Mass., and one from Ree Ree Bottom, in the Scioto Valley, which "has been cultivated fifty-one years; forty-five crops of corn and two or three of wheat have been taken from it; it has also been a few years in grass or clover. It has scarcely diminished in fertility, and now, with the most ordinary culture, yields on an average one year with another, eighty bushels of corn to the acre."

This astonishingly fertile soil, Prof. Wells found to contain in 10,000 lbs:

Insoluble silicates, clay, &c., ...	8300	lbs.
Lime, ...	40	"
Phosphoric acid, ...	4	"
Alkalies, ...	16	"
Organic matter, ...	600	"

The Massachusetts soil contained in 10,000 lbs:

Insoluble silicates, ...	8800	lbs.
Lime, ...	200	"
Phosphates, (phosphoric acid and alkalies,.	60	"
Organic matter, ...	800	"

It will be seen that the Massachusetts soil contains one third *more* organic matter, five times as much lime, and three times as much phosphoric acid and alkalies, as the rich Scioto valley soil. If we stated anything "contrary to truth" it was in saying that "so far as chemical composition was concerned one soil was *just as good* as the other, for in fact, *according to the analyses*, the New England soil is *much better* than the rich soil of the Scioto valley.

We asserted that Prof. Wells' results show that the difference between the rich Scioto soil and the comparatively sterile soil of New England, is not in chemical composition, but in the size *of the particles* of the soil. We have shown that, in one instance at least, the Massachusetts soil, "so far as chemical composition is concerned," is *richer* than the *richest* of the Scioto soils. Let us now look at the question of the *size of the particles*. Prof. Wells says, "This element of the different soils (organic matter) will *generally* be found to be greater in the rich Ohio soils than the soils of New England. Compared with tho alluvial lands along the rivers of New England, *the excess is not very considerable*. But there is a very great difference in the state and condition in which this organic matter exists in the soils of the Scioto, and the soils along the Connecticut. In the former, it is so finely divided, so blended and incorporated with the mineral particles, that few, on examining tho dry, pulverulent soil, would be able to form a fair comparative opinion respecting the quantity present. * * On the contrary, much of the organic matter in the soils of New England is coarse, recently derived from decayed animal or vegetable organisms, and perhaps not yet thoroughly decomposed." * * * "There is one other point in which the Ohio soils examined by me differ from New England soils, and that is, in the *fineness of their constituent particles*, most of them being but little else when dry, than impalpable powders."

Our readers can now judge for themselves, how far that "singular paragraph" was "contrary to *truth* and reason."

Peruvian Guano for Wheat.

In 1853, James Caird of Beldoon, Scotland, dressed in the fall, a hundred-acre field of wheat with two cwt. of Peruvian guano per acre, leaving an acre, in the center of the field, without guano. The result was: The acre without guano gave 35 bushels of wheat, and 30 cwt. of straw, and with the guano, 44 bushels and 40 cwt. of straw. Last year he repeated the experiment. A fifty acre field of wheat was dressed in the fall, at the time the seed was sown, with two cwt. of Peruvian guano per acre, leaving an acre undressed in the center of the field. The acre without guano was a week later in ripening than the other, and the yield was: Without guano, 25½ bushels, weighing 60 lbs per bushel; with guano, 32 bushels, weighing 63 lbs. per bushel. That is to say in 1853, 224 lbs. guano gave an increase of 9 bushels; and in 1854, an increase of 6½ bushels, or taking the difference of weight per bushel into account, an increase of 8 bushels per acre.

From this our readers can judge for themselves, whether guano at 2½ cents per lb. will be a profitable application to their wheat fields. We may remark that Mr. **Caird** is an ardent advocate of the use of guano, and would be inclined to make out as good a case as possible. In the west of England, it is the opinion of farmers of much experience in the use of guano, that 100 lbs. of good Peruvian guano will not increase the wheat crop more than three bushels per acre. The general opinion in Maryland and Virginia, where guano is extensively used on impoverished soils, appears to be that 100 lbs. of good Peruvian guano will increase the wheat crop 4 bushels per acre. This estimate is even more favorable than the results of Mr. **Caird**.

There is one thing in Mr **Caird**'s experiment which somewhat surprises us. *The guanoed portion ripened a week earlier than the unmanured acre.* Should this prove to be usually the case, guano might become additionally valuable, in pushing the wheat out of the reach of the weevil. Have any of our readers observed this effect of guano? Does rich land produce earlier wheat than poor land?

Mr. **Caird**, last year, also tried a mixture of nitrate of soda and common salt, as a top dressing in the spring, for wheat. One cwt. of the nitrate and one cwt. of the salt, were sown in April on an acre of wheat, and the result was: One acre without manure gave 30 bushels, and the acre dressed with the nitrate and salt gave 42 bushels. The 112 lbs. of nitrate of soda, cost $4.50, and the salt 50 cents; so that an increrse of 12 bushels of wheat was obtained for $5 expended in manure.

Culture of the Onion.

Messrs. Editors—In your last number I observe some inquiries in regard to growing Onions on Muck soils, their preparation, &c. Perhaps I can give the information, having raised them on such ground for several years with good success. The ground should be turned over in the fall, for two reasons—first, the frost pulverizes all lumps; and secondly, it becomes dry and fit to work sooner in the spring, thus enabling the seed to be got in early, which is very essential for a good crop. I draw on, before sowing the seed, about forty loads of well rotted barn-yard manure, and harrow it in thoroughly; mark out the ground in drills fourteen inches apart, and sow at the rate of six to eight lbs. of seed to the acre, covering the soil with the back of the marker, and finishing up with the hand roller. After the plants are up two or three inches, if the weeds begin to start, I pass the hoe between the rows as near the plants as possible, and take out what weeds are left by hand. I continue the same process as long as necessary, to have them clean. Clean culture is more necessary in raising onions than almost any other crop; as they require no system of rotation, and the expense of cultivation depends on the weeds, nothing more being required, in my opinion, but to keep them clean. I never stir the ground any deeper than is just sufficient to kill the weeds, and I have raised nearly nine bushels to the square rod, or fourteen hundred to the acre. I always apply one or two top-dressings of wood-ashes, sown broadcast in June, at the rate of thirty bushels per acre, with marked effect. I do not know the composition of the onion, (will some one give it?) but think it contains a large percentage of nitrogen and potash.

Your correspondent wishes to know which is the best kind. I have raised several kinds, but prefer the Wethorsfield Large Red, as being more prolific than any other, good to keep, and brings a fair price in market. I would advise your correspondent not to buy his seed of irresponsible dealers, who do not care whether their seeds are good or not, but get it of established seedsmen, and I will warrant that next fall he will have no cause to regret having paid a trifle more for it. I have always got my supply at J. M. **Thorburn**'s, John-St., New-York, and I believe every seed comes up, while some of my neighbors have been bit by street peddlers. J. H. **Vail**. *Chester, N. Y.*

[The onion, in addition to the peculiar flavor for which it is usually esteemed, is remarkably nutritious. According to **Johnston**'s analyses, the dried onion root contains from twenty-five to thirty-five per cent. of gluten. This makes it far more nutritious than turnips, carrots, beets or potatoes. **Eds.**]

Value of Corn Cobs.

Shell all your corn before you sell it, and *crush the cobs for cattle feed;* when crushed, cooked, and mixed with cut hay or straw, 4 bushels are worth as much as 2 bushels of grain, and make most excellent messes for milch cows, or working oxen.—*Exchange Paper.*

In the Eastern states, where corn and all kinds of cattle food command high prices, there can be little doubt that it pays to grind the cob with the corn without shelling. In the large Rochester mills, the charge for grinding a bushel of shelled corn is five cents; for grinding two bushels of corn in the ear, (equal to a bushel of shelled corn) eight cents. Estimating that the two bushels of ears weigh 80 lbs., and the bushel of shelled corn obtained from them to weigh 60 lbs., we pay three cents for grinding 20 lbs. of cobs, or $3 per ton. It must be remembered, too, that we save the expense, and the loss of corn, of shelling. Corn-cobs are not very nutritious—equal to the best wheat straw—but in this neighborhood, at least, when ground, they are well worth $3 per ton. There is, however, no such advantage in grinding cobs as the writer we have quoted would lead us to believe. He says, four bushels of ground cobs are worth as much as two bushels of grain. This is a great mistake. Four bushels of cobs, at most, would not weigh more than 80 lbs., while the two bushels of corn would weigh 120 lbs., and no one can for a moment, suppose a pound of cobs, cooked or ground, or messed up how you will, can possibly afford as much nutriment as a pound of corn.

The practice of grinding corn *in the ear*, where cattle food is high and scarce, is a profitable one, and there is no necessity for making such extravagant statements in regard to it. If those who write for the agricultural press would keep within bounds, there would be far less prejudice against book farming.

Sanding Paint—Coarse Paint.

Messrs. Editors—I would like to obtain a recipe for a sand coating for a board house. I have tried for years to get hold of some plan to fix sand or gravel upon a wood wall, to be used with some kind of sizing impervious to weather. I find on page 28 of your Register for 1854—paragraph 1st—a reference to its use on cheap farm houses, "with vertical boarding, and is intended to be painted and *sanded* on the rough surface." Will you be so good as to inform me as to the modus operandi? I would cheerfully pay whatever you wish for the information. T. Boyer. *Gallatin, Tenn.*

The simplest way of sanding, is to dust it over the second coat of paint, a sufficient quantity of which will adhere to the fresh paint to form a uniform surface. A thin third coat is sometimes applied over this to cause more firm adhesion, but is not necessary on the rough cottage siding.

A cheap outside application is made of the best and purest lime wash, of the consistence of thick whitewash, to which, after the lime is thoroughly dissolved and intermixed, one twentieth of the weight of lime is added in *white vitriol* (sulphate of zinc,) which will cause the whole to adhere, and become more durable than lime alone. Its brilliant whiteness may be softened to a cream color, by adding a fifteenth of the lime in yellow ochre; or to a fawn color by the same quantity of a mixture of 8 parts of umber, 2 of Indian red, and 1 of lampblack.

Gervase Wheeler recommends the following:—Dissolve seed-lac 1 lb. in 1 quart of alcohol, add this to a gallon of turpentine, cold linseed oil 3 pints, boiled oil 3 pints, beeswax 4 lbs, ox-gall 10 ounces; mix these all together, and then add 1 gallon of tar. Lay it on with a large flat brush. It appears to us to be needlessly complex in its composition, but is highly recommended.

The following is recommended by Downing, as being not only much cheaper than common paint, but *far more durable*, increasing in hardness by time:—1 part each of powdered quick-lime and white sand (or coal ashes), and 2 parts of fresh wood ashes, all sifted, and mixed thoroughly while dry, and then rendered liquid like paint by enough linseed oil for this purpose. Its light grey stone color may be modified variously by ochre, Indian red, umber, lampblack, or Spanish brown. The first coat should be thin, the second thick. It is equally suited for wood, brick or stone.

How to Kill Liveforever.

I think this troublesome weed can be destroyed by sowing salt upon it broadcast, at the rate of fifteen bushels per acre; and I will give my reasons for thinking so. When I first settled on the farm on which I now reside, (which was twelve years ago,) I discovered several bunches of liveforever. Having heard that it was the worst weed to kill that grows in this part of the country, I thought I would try an experiment upon it; which I did in the following manner: I salted my sheep and cattle on it whenever they run in the field where it was. I followed this practice two years, and have seen none of the weed on the farm since. Elihu Cross *Potter Hill, N Y.*

National Poultry Show.

We learn from a friend who attended the "National" Poultry Show, held last week, in Barnum's Museum, New-York, that although the attendance was not large, and many of the most celebrated breeders of Dorkings and other good old favorite varieties were absent, yet on the whole, the exhibition was eminently successful, and probably the largest ever held in this country. The Asiatic varieties were out in full force, though it is most evident the passion for big chickens is much abated. There is a manifest improvement in the form of these varieties. Shanghais, of good size, were shown, with short legs, full breasts, round, symmetrical bodies, well covered with fine, compact, glossy feathers, and fine clean heads. At least they approximated much more closely than hitherto to this description.

The show of Game Fowls, of the several varieties, was quite large and good; and the Bantams made up in number and quality what they lacked in size. The Golden Hamburghs, Bolton Greys, Black Spanish, Polands, &c., were well represented in number and quality. The show of Dorkings was meagre. Our friend, who has travelled much in this country and in Europe, thinks the show of Turkeys beats anything he ever saw before. Peacocks and Guinea hens, Bremen, African, and Chinese Geese; ducks of all kinds, grouse, rabbits, &c. &c., were all there in rich abundance. We regret that we were unable to attend.

Profits of Poultry.

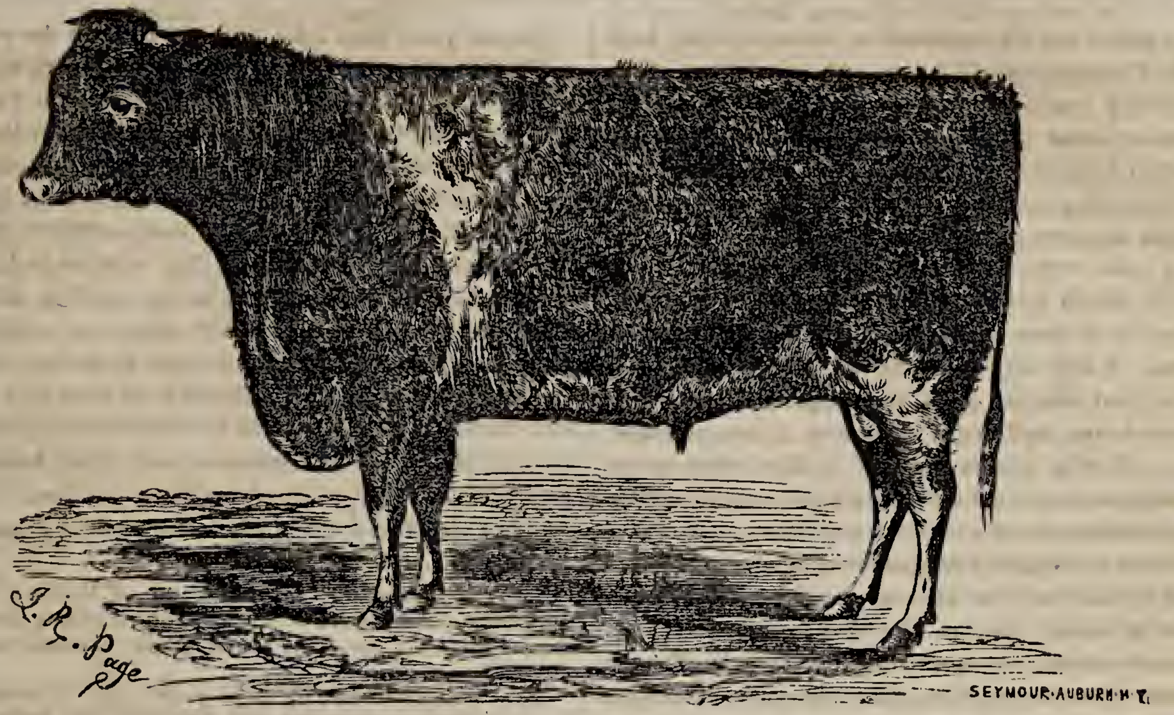
Mr. David Depew, of Washtenaw Co., is reported in *The Michigan Farmer*, to have kept during the past season one hundred and sixty-five hens, from which he has had twelve hundred and seventy dozen eggs, which have averaged ten and a fourth cents per dozen, making the yield of each hen, in eggs alone, seventy-eight cents. The average number of eggs for each hen is ninety-two. The feed of the hens consisted of a change, or a mixture of oats, corn, barley and milk-feed.

In estimating the profits of poultry, the guano which may be obtained from the droppings of the roost, should always be taken into account. If something be added to the above on this account, and from thirty to forty cents deducted for the feed of each hen, there will remain a profit of more than 100 per cent. on value invested. What rural business is more profitable?

To Destroy Grasshoppers.

Messrs. Editors—Your correspondent who inquires for a mode to prevent grasshoppers from destroying the foliage of his young fruit trees, vines, &c., may find an easy, safe and sure, and at the same time profitable one, if he will just put two or three old hen turkeys with their broods of young in the infested enclosure. The young turkeys are very fond of grasshoppers, and soon become dextrous in capturing them, upon which they grow and fatten rapidly.

I have known an old hen with thirteen young ones the past season when grasshoppers were unusually numerous, that kept a five acre lot well cleared of them. Respectfully, A. C. J. *Richfield Spa, Nov.* 27, 1854.



Short-Horn Bull Calf Schenandoah.

The above beautiful Short-horn bull calf, bred by, and the property of Col. J. M. SHERWOOD, of Auburn, N. Y., was calved 27th Dec., 1853. Color, roan. Got by 3d Duke of Cambridge, 5941. Dam Red Rose 4th, by Earl of Chatham, 10,176. ——— Red Rose 2d, by Napier, 6238. ——— Tube Rose, by South Durham, 5281. ——— Rose Ann, by Belerophon, 3119. ——— Rosette, by Belvidere, 1706. ——— Red Rose, by Waterloo, 2816. ——— Moss Rose, by Barron, 58. ———Angelina, by Phenomenon, 491. ——— Anna Boleyn, by Favorite, 252. ——— Princess, by Favorite, 252. ——— (Bred by R. Collins,) by Favorite, 252. ——— Hubbuck, 319. ———Snoden's Bull, 612. ——— Masterman's Bull, 422. ——— Harrison's Bull, 669. ——— bought of Mr. Pickering, of Sedgefield Hall, by Mr. Hall.

Diseases of Animals often Caused by Mismanagement.

One can hardly spend a few hours on a well traveled road, or in a village thronged with teams, without witnessing such treatment or rather mis-treatment of animals as must result in producing great discomfort and suffering, if not actual disease. For want of judgment or want of consideration and proper feelings, there is everywhere to be seen quite a painful amount of negligent, improper and cruel treatment of domestic animals. Perhaps veterinary practitioners more frequently see cases of disease from such treatment than from all other causes combined. A great many of the cases of disease to which they are called, have their origin in some kind of mismanagement, and might be avoided by the use of a little more judgment, or a little more kind consideration in feeding, housing, &c.

We have been reminded of many cases of cruelty and mismanagement, by reading a paper by a veterinary surgeon in the Transactions of the Highland and Ag. Society. It is there stated that animals get diseased with treatment usually considered good, as well as from that which all would pronounce cruel or bad. The system of fattening cattle, though it accomplishes seemingly well the object in view, is yet decidedly unfriendly to good health or soundness of constitution. Scarcely a single high-fed ox can be found which is perfectly free from disease of the liver, or other internal organs. A perverted taste in those given to epicurean indulgences in this way, brings upon its votary its own punishment; for while to gratify his artificial taste, he calls for a treatment of animals which makes them diseased, he must more or less suffer in health for eating the flesh of an unsound and unhealthy creature.

But it is to diseases from a different source that we would call the attention of those who would not knowingly or willingly treat any of their animals ill or improperly. The horse is usually the greatest sufferer from mismanagement. *Irregularity* in feeding is one of the most common causes of injury to the health and long life of a horse. If horses were fed as regularly as their masters, there would be fewer cases of suffering, disease and death. But nothing short of much suffering or actual disease can come of driving a horse a long journey, and then letting him eat at his will of hay or grass as the season may be. We have known one valuable horse killed in this way, on account of the penuriousness of its driver, who drove it a long journey without resting or bating. Its supper overloaded its stomach, and tasked beyond their ability its digestive powers in the jaded and exhausted condition in which the day's hard work had left it, and an attack of colic and acute indigestion, resulting in death, was the consequence. There is more danger of such diseases from green succulent food than from dry. There is always danger in allowing a hungry or over-worked horse to partake freely of grass, clover or roots. If the digestive powers are not competent to dispose of such food, a fit of indigestion will follow, with more or less of the following symptoms in a greater or milder degree: Turning round the nose to the sides, heaving at the flanks; lying down and immediately getting up again, or attempting to roll when down; distention or bloating; a look of agony; debility or staggers.

A horse with its stomach full of green food should not be driven fast or put to hard work, else similar symptons to those just mentioned will be apt to supervene. A horse so fed and driven is liable to be taken with great distress, quick breathing, and distention of the abdomen, inclining it to lie down if not prevented. The following case is reported in illustration in the Transactions referred to. In July last year, one of the horses belonging to a medical gentleman of extensive practice was suppered on green food about eight o'clock, and in about an hour after was suddenly required to perform a rapid journey. He very soon showed symptons of distress, but was obliged to proceed. He was driven home in less than three hours, and was then suffering from paroxysms of agonizing pain, with profuse perspiration and a depressed pulse. A solution of some opium in four ounces of sweet spirits of nitre, with some decoction of aloes was given him. This gave temporary relief; but soon the symptons returned with increased violence. A drench of the same nature and strength was given and blood abstracted. This was followed by relief, but had to be repeated in a few hours. After the third dose the horse got well, but was very weak for about a week. There have been cases so severe, of this kind, as to cause rupture of the stomach, the contents being found scattered all over the bowels. We may return to this subject.

The Best Breed of Cows.

MESSRS. EDITORS—In the January number of the Journal of the N. Y. State Ag. Society, I notice a communication from J. WELLS of Norwich, Chenango County, in which he says—"I doubt very much whether there has ever been any better breed of cattle either for beef or milking than the native red cattle. *It is keeping that makes the cattle.*"

The surprise which the above extract is calculated to produce is very much mitigated by the sentence which follows it: "There is not much attention paid to scientific farming."

Where attention has been given to scientific farming it has long since been ascertained that there is a vast difference in breeds of cattle. If this were not so, why do we see so great a difference in different animals under the same treatment? I have now three steers one year old last spring. One is one half, one is five eights, and the other is three fourths Short Horn. They have been kept together and have fared precisely alike, and all are good animals though neither is *red*. In *size*, *condition*, and *quality*, *they grade as in Short Horn blood*, and good judges think the best one will now dress 800 lbs. Their feed now is cornstalks, straw, and three quarts each of corn meal daily. Until middle of Nov. they had grass only.

Several years since I fed 30 steers through the winter, and in the spring sold them for the New-York market. About three fourths of them were *choice "native red cattle"* and one fourth were grade Short Horn but of coarse quality. The 30 steers were fed *the same quantity of meal each*, and in other respects fared precisely alike, yet the gain was at least as *three to two* in favor of Short Horns, though they were not *red*.

Some families of Short Horns do not excel as milkers, and this also is true of the "native red cattle." Other families of Short Horns do excel as milkers, and as a whole breed they are believed to be unrivaled by the "native red cattle," while for beef they are second to none, and those best acquainted with them believe no other breed equals them for milking qualities.

A few instances are here given of the milking qualities of thorough bred Short Horns:

Ruby, now owned by S. P. Chapman, of Madison Co. on grass feed only gave 1009½ lbs milk in twenty days, from which 40⅛ lbs. butter was made. Transactions for 1850 page 36.

Appolonia averaged 24 to 30 quarts daily for weeks in succession on grass, and did not dry until calving unless forced.—A. H. B. page 145.

Blanche on grass gave 12 qts. milk, 3 times each day. For 6 successive weeks, averaged 14⅛ lbs butter.—A. H. B. page 149.

Lady Althorp gave 30 quarts daily for months in succession, 5 quarts of which yielded 8½ oz.—A. H. B. page 163.

Lucilla gave 337 lbs milk in one week on grass only, which yielded 15 lbs. 3 oz. butter.—A. H. B. page 198.

Miss Lawrence gave 34 qts. rich milk daily on grass. —A. H. B. page 205.

Splendor averaged 28 qts for 3 months on grass only. —A. H. B. page 229.

Susan gave 32 to 36 quarts daily on grass only. A. H. B., page 232.

Young Willey yielded 12 lbs. butter weekly on grass. A. H. B., Page 238.

These examples might be multiplied to an almost indefinite extent, but I forbear for this article is now much longer than I intended to make it. E. MARKS.
Fairmount, Jan. 15, 1855.

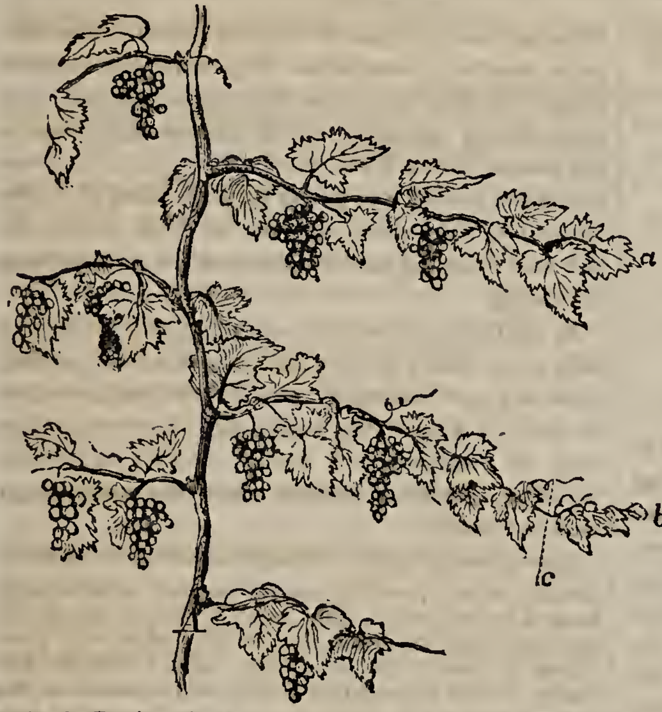
Produce of Seed altered by Age.

The practice of sowing old seeds of cucumber and melon in preference to new, (see Co. Gent. vol. 4, p. 379,) is a very general one among the gardeners of England. There is certainly a very marked difference in the growth from new and old seed—the former producing strong vigorous growth, consequently late in fruiting, while the old seed is proverbial among the "clan," for early and free productiveness. It is not at all uncommon for a gardener to have seeds of his own saving from some favorite sort, from six to eight years. Where so much winter forcing of these two plants is carried on, and often by the fermentation of manure alone, it is of the utmost importance to have sorts or seed highly productive.

Balsam and cockscomb too, are undoubtedly better, that is, the balsams more double, and the comb finer from old than new seed. The almost spontaneous production in this country, of the things mentioned here, is probably the cause why they receive so little attention, while in England the whole of them require a great deal of care to bring to perfection. E. S.

Pruning the Grape.

A correspondent at Southeast, N. Y., requests a chapter on the pruning of the grape. He adds, "I do not trim on the renewal system, and I find that this year's shoots that are to be next year's bearers, if kept without any trimming, fling out such a profusion of side-shoots that they become altogether too thick; and by trimming them off, the bud which should be left to grow next spring, will grow this summer and produce a crop of grapes. I had grapes on such vines this year that were about full grown when frost came. I cannot keep the vines thin enough without taking off the side-shoots. I also wish to ask whether, in grafting the vine, if we have little vines up, shall we graft them, and then set them out as we do root-grafted apple trees, or must they be cut off below the surface and be grafted when they are growing?"



Fi 1—Portion of a grape vine in bearing, representing the bearing branches, from the sides of a last year's vine.

In compliance with the request of our correspondent, and in reply to frequent inquiries, we furnish a few hints on pruning the grape, which we shall endeavor to make sufficiently plain by reference to figures, that inexperienced cultivators may easily understand them. A well-pruned vine will not only produce *earlier* fruit, but it will be larger, and incomparably superior than on one left to straggle without care.

There are two leading principles that should be always observed in pruning the grape, whatever may be the particular mode adopted. The first is, that the vine *always bears its fruit on the present year's shoots*, which have sprung from buds on the previous year's growth, (Fig. 1.) Secondly, that the full growth and perfect ripening of the *fruit* depends wholly on healthy, well developed *leaves*, which supply food to the forming berries, and hence the growth must not be allowed to become so thick that the leaves cannot properly develope themselves, nor should the vines be trimmed so closely that there shall not be leaves enough for the perfection of the fruit. These two facts must be always borne in mind by those who would raise the best grapes. These being understood, we now proceed to the details of pruning.

First Year. When a vine is first procured from the nursery in spring, it is usually furnished with several irregular shoots of the previous summer's growth, resembling Fig. 2. These should be all closely pruned to the older wood, leaving only the strongest, and this should be cut back so as to leave but two or three buds, Fig. 3. These buds will grow, and when only a few inches in length, the strongest shoot must be selected, and the others rubbed off. This single shoot is allowed to grow till about the first of autumn. After this period, the new leaves and wood that are formed, cannot mature perfectly, and their growth will be in some degree at the expense of the matter forming in the previous portion of the shoot. Its growth should be therefore stopped by pinching off the end. This will assist in maturing and strengthening the vine. Any *side-shoots* that appear during the summer, or any smaller shoots that happen to spring up from the stump, should be kept rubbed off as fast as they appear, as they withdraw and divide the nourishment received from the roots.

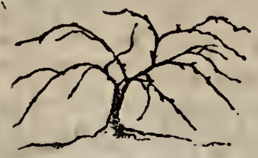


Fig. 2—Vine as obtained from nursery, with straggling shoots.

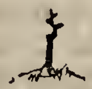


Fig. 3.—The same, pruned, when set out.

Second Year. The single strong shoot made the first year, (fig. 4.) should be cut down to three or four buds, only *two* shoots from which should be allowed to grow, the others being rubbed off, and the lateral shoots, should any appear, being removed as already described. The autumnal shortening of the two shoots as above stated is also necessary. The judgment of the cultivator will teach him, that if the tranplanted vine is small or weak the first year, and makes but a few feet growth, the same first year's process must be gone over again the second year, until the vine becomes strong enough to send up a shoot at least some nine or ten feet in length, when the "second year's" operation may be commenced upon it. Any fruit which sets should be removed, as the vine is not yet strong enough to bear and support

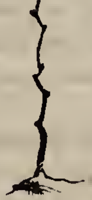


Fig. 4—Growth at end of first summer from setting out.

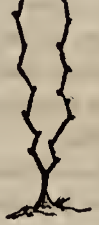


Fig. 5—Growth at end of second summer from setting out.

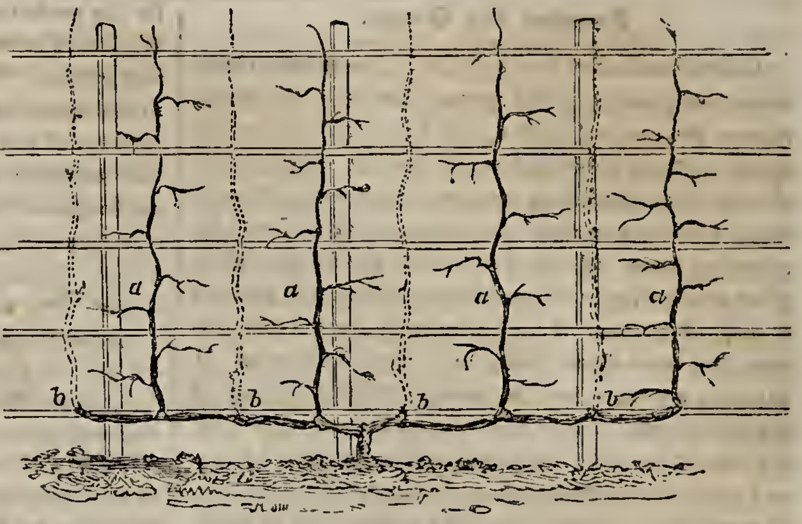


Fig. 7—A full grown grape vine, trained on the alternate or renewal system—the dark vines, the present year's bearers—the dotted ones, growing this year, for bearing next.

a vigorous growth at the same time.

Third Year. The two shoots made during the second year, (fig.. 5) are now extended each way horizontally, and fastened to the newly erected trellis. This may be done at the end of the second year, or early in the spring of the third. These horizontal branches, termed *arms*, are to be cut back at the same time, so as to leave two good buds on each, so that four shoots, two on each side, may spring up from them; the same care as formerly being observed to remove suckers or supernumerary shoots and side branches, and to give the autumn shortening. None of the fruit bunches should be allowed to remain. The four shoots as they advance in growth, should be tied to the trellis, in the position that the figure represents

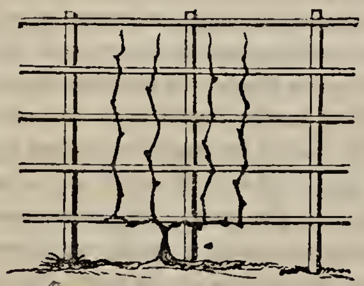


Fig. 6—Growth at end of third summer from setting out.

Fourth Year. Two shoots or canes are suffered to remain in their position upon the trellis, merely cutting them down to three or four feet. They will throw out from each bud side-shoots, which are the fruit-bearers, and on each of these spurs one or two bunches of grapes may be allowed to remain and ripen; the ends of these spurs or side-shoots being pinched off, as shown at *c*, Fig. 1. All other bunches should be rubbed off as soon as they form. The other two or outer shoots, should, early in the same spring, (or late the previous autumn,) be laid down horizontally so as to form an extension or continuation of the *arms;* and at the same time be shortened to within about two feet of the ends of the previous arms. Two buds should be allowed to grow on each of these horizontal portions, one of which is to be trained up on the trellis for another bearing branch, and the other to serve for a continuation of the arms, as before, no bunches being allowed to grow on them. In this way, two new bearing shoots are added yearly, until the entire space intended for the vine on the trellis is filled.

We have already remarked at the beginning of the previous paragraph, that the two upright shoots are cut down to three or four feet. A bud should be allowed to grow at their upper ends, from which all bunches are to be removed, so that they may serve to extend their length upwards, till the full height of the trellis is attained.

There are two modes of treating vines trained in this way. One is what is termed *spur-pruning*, and the other the *long-cane* or *renewal* system. Theoretically speaking, there is but little difference between them, but they are quite different in practice. We have already remarked that the bunches are borne on the present season's shoots. In *spur-pruning*, these shoots are thrown out yearly from the sides of a *permanent* upright shoot, and are cut back yearly, for new ones to spring out from the buds left at their base in pruning.

In the *long-cane* or *renewal* system, every alternate stem is cut wholly down to the horizontal arm; so that, while last year's upright shoot is furnishing a crop of grapes this year,—this year's shoot is growing (free from all bunches,) for a similar crop for next year No shoot, therefore, remains above the arms longer than two years.

Spur-pruning is best adapted to slowly growing sorts, (chiefly exotics) which cannot produce a full-length branch in one year. The renewal system is best for the most vigorous American varieties, which will grow fifteen or twenty feet in a year. Fig. 7 exhibits distinctly a vine trained to a trellis, and treated on the renewal system, the dark shoots being the present season's bearers, and the dotted lines showing the growth of the canes for bearers next year, while new ones are growing in the places of this year's bearers.

Summer pruning, which consists in the removal of all supernumerary shoots and bunches as fast as they appear, and in pinching off the ends of bearing shoots, after enough leaves have formed, is of great consequence. Vines left to themselves, even after a thorough spring pruning, soon have such a profusion of leaves and branches, that none can perfectly develope themselves, and the fruit is consequently small, the bunches meagre, and the ripening late. The summer pinching of the ends of the bearing shoots, should be cautiously done, and not before the grapes are about half grown; four or five leaves at least should be left on every one, above the last bunch, and never more than two bunches be allowed on each bearing shoot.

The old vine should never be allowed to rise a foot from the ground—the lower it is kept, the easier the vine will be managed, and the freer it may be kept from suckers. Some of the best cultivators bury the old stump beneath the soil.

The preceding, will, we hope, fully answer all the inquiries of our correspondent, and prove useful to beginners generally. We are not aware of any experiments in root-grafting the grape out of ground—its success can be only proved by actual trial.

Bones as a Fertilizer.

Mr. C. D. Hopkins of Salisbury Center, Herkimer Co., N. Y., writes us that, "from reflection and a hasty estimate, I doubt not that there is, in this single town of Salisbury, not less than 50,000 lbs. of bones left to waste and bleach in the open air every year. I made an *unsuccessful* attempt to dissolve some of these bones in sulphuric acid, according to the method described by Professor Norton. I should be glad of any information as to how they may be decomposed, the best mill for grinding, &c." Several of our correspondents ask similar questions, especially in regard to the manufacture of home made superphosphate of lime. We will endeavor to answer these inquiries to the best of our ability; premising that the subject is one of great importance, on which science has thrown much light, but which is still surrounded with many practical difficulties.

The value of bones depends on the phosphate of lime and gelatine which they contain. If we burn bones the gelatine is driven off, while the phosphate of lime remains as ashes. Dry bones contain, in 100 lbs., about 50 lbs. of phosphate of lime, and gelatine equal to about 5 lbs. of ammonia. The commercial value of the former is about one cent per pound; of the latter, twelve cents per pound. This would make 100 lbs. of bones worth $1.10;—the phosphate of lime being worth 50 cents, and the gelatine 60 cents. In burning, therefore, we destroy more than half the value of the bones.

The great question is, how can bones be applied so that the phosphate and the gelatine shall be both retained. Plow them in whole, is the first plan that suggests itself. This certainly retains in the soil all the virtue there is in the bones, but they are so slow to decompose and give up their fertilizing matter, that little or no immediate benefit is derived from their application. Place them in moist unleached wood ashes, or in horse dung or other fermenting material, and they will decompose and fall to pieces, is another recommendation. This plan has had many able advocates. It has doubtless in many cases proved effectual. There is, however, this objection to it, a considerable portion of the ammonia formed during the decomposition of the bones escapes; and if, in order to retain the ammonia, we surround the heap with loam, peat, &c., fermentation proceeds so tardily, from lack of air, that the object is but half accomplished. Better, however, treat bones in this way, than allow them to lie bleaching in the summer sun, an eyesore to every passer by.

Phosphate of lime as found in bones is insoluble in water, and, as plants can take up their food only in solution, it is very desirable that this insoluble phosphate should be converted into a soluble phosphate. This can be done simply by the addition of the proper quantity of sulphuric acid and water to the insoluble phosphate of the bones. The value of this change may be understood by the consideration of the fact that, while the insoluble phosphate sells in London for less than one cent per lb. the soluble phosphate sells readily, as a manure for turnips, at eight cents per lb.

Knowing the increased value of the soluble phosphate, and the great difficulty of reducing bones to a powder, many scientific men have recommended farmers to dissolve whole bones in sulphuric acid, and thus "kill two birds with one stone." We have experimented not a little on this subject, and have come to the conclusion that it is *practically impossible* to make a good superphosphate of lime from whole bones. We have used twice the quantity of acid necessary for the conversion of the phosphate into superphosphate, and allowed it to act on the bones for several months, yet only a very small proportion of the bones was decomposed. Equally unsuccessful, too, have we been in dissolving coarsely crushed bones. The acid it is true decomposed the outside portions of the bone but left by far the greater part of the bones untouched. We have never yet succeeded in making a good superphosphate of lime without grinding the bones quite fine before mixing them with the acid.

We conclude, therefore, that while bones may be disintegrated by moist, unleached wood ashes, or by fermentation, the only method of obtaining *all* their fertilizing properties is by grinding. We should be sorry to discountenance experiments having for their object the decomposition of whole bones, but at the same time we could wish that some of the intelligence, ingenuity and skill, which have hitherto been unsuccessfully employed in this matter, were turned to devise a cheap and efficacious bone-mill, and that one was erected in every town of the country.

Having the bone dust, how should it be used? Should it be converted into superphosphate, or sown on the land as it is? We have thought much on this subject, and are inclined to think that, except in the neighborhood of large cities, where sulphuric acid can be obtained at a reasonable rate, say two cents per lb. it will generally be cheapest in the end to apply the bone dust without mixture with acid. For wheat, we are fully satisfied it will not pay to decompose the bones with acid, and on grass lands, from the experiments we have made on the subject, we conclude it is of doubtful economy. For turnips and other root crops, except potatoes, no manure has such a beneficial effect as good home-made superphosphate of lime drilled in with the seed. If sown broad cast its effects are not so marked.

With fine bone dust no farmer need have any trouble in making superphosphate. We have succeeded best as follows: Take a large tub or end of a cask, place in it the quantity of bone dust that can be best worked at a time, say 60 lbs, add water sufficient to wet all the bone dust, say 40 lbs., and be careful that all the dust is moistened. Then pour on sulphuric acid equal to full one third the weight of the bone dust, say 20 to 25 lbs. (sp. gr. 1.70.) The mass should be briskly stirred as soon as the acid is added. When it is well mixed, throw the semi-fluid mass in a heap on to a wooden floor, and repeat the process till the whole is done. The larger the heap the better, as the heat generated during the process materially assists the acid in decomposing the bones.

A tolerably good superphosphate may also be made with less labor, by placing all the bone dust at once in a heap on a wooden floor, adding the proper quantity of water, and turning over the heap till all the dust is moistened, and then apply the sulphuric acid in small quantities, repeatedly shoveling over the heap, and adding the acid till the proper proportion is used. The longer the superphosphate is allowed to remain in the heap the better.

Superphosphate so made will be too moist for transportation, and cannot be sown to advantage without admixture with some absorbent substance. In England, burnt clay, refuse charcoal dust, coal ashes, dried peat, or even sawdust, is used for this purpose. Whatever is used, be very careful that it does not contain an alkali, or alkaline earth, as this would materially injure the mixture. Unleached wood ashes and lime, must on no account be employed for this purpose. They would neutralize the acid, and re-convert the soluble superphosphate into the insoluble phosphate, and thus undo what had been done at considerable expense. We hope yet to see the day when a good superphosphate of lime can be purchased in all our cities at a reasonable price, when a liquid manure drill shall be considered a necessary in every town, and when superphosphate shall be applied in a *liquid state* to several acres of root crops on every farm.

A Vermont Corn Crop.

The following statement, furnished to the Committee on Farm Crops, at the late winter meeting of the Vermont State Ag. Society, and on which the first prize for Indian corn was awarded to Mr. Colburne, has been sent to us for publication :

Gentlemen—I present you the proof of the quantity of corn grown upon one acre the past season, *viz.* 113¾ *bushels*, weighing 59½ lbs. per bushel, and cobs, 12¼ lbs. I also present you a sample of the corn, a variety of the 8, 10 and 12 rowed mixed, a deep kernel and small cob, now designated as the *Skitchawang* corn.

The soil on which it grew is allavial, near the Connecticut river; was broken up in 1852, and sowed with oats. In 1853, manured with hog-yard and compost, spread broadcast, 50 ox cart loads to the acre: plowed 10 inches deep, and planted with corn; the result, 105 bushels to the acre. This was a field of 7½ acres, for which I received your first premium last year.

Three acres of this field were last spring again manured with coarse barn-yard and stable manure, about 40 loads to the acre, spread as the year previous, and plowed 12 inches deep, thoroughly harrowed, planted 24th May, seed dry, hoed well three times, ashes and plaster after the first hoeing, a handful to each hill; plaster alone after the second hoeing, a table spoonful to each hill; rows 3½ feet, hills 2½ feet apart; harvested early in October. The corn was all sound and well filled out, not injured in the least by the severe and protracted drouth, which is attributed in part to the nature of the soil, but more to the deep plowing. That part of this 3 acre field which I present for a premium, is an acre on one side which received the stable manure, the yield on this acre being full one-fourth greater than on the other two acres which received the coarse manure from sheep yards.

Manure from stables is stronger, and acts quicker than sheep manure, but the latter seems to hold in the soil, and shows its effects in after crops, quite equal to cattle manure, and better than horse manure, though none is so good as a hog-yard compost. J. W. Colburne. *Springfield, Jan.* 10, 1855

First Year's Experience in Farming—No. II.

Restoration of old Meadows.—Finding that my meadows had been left without manure for many years, regularly mowed, and afterwards thrown open to the adjoining pasture lands, and that they had yielded but scanty crops of hay, I looked anxiously for some sure mode of restoring them to fertility. Not being able to collect the personal experience of farmers upon this subject, in any other way, the books which treated of the modes of restoring old meadows, were my resort. Here I found many useful suggestions. The *best* mode of treating them and the one which recommended itself as the most sure and permanently successful, was *plowing up, tilling, manuring* and *re-seeding*. But thirty acres of my farm were already under plow, and it would greatly add to the labor of conducting the farm and diminish my most needed hay crop, for a number of years, if this course were adopted. I could not do this.

If affairs had come to this condition under my own management, it would have resulted from a series of blunders I should prefer to remain unknown. For a good farmer will so conduct his business, as to be able whenever *necessary*, to plow up portions of his meadows and still retain the desired crops, without much change in character or quantity. But like many other troubles encountered during the year, I attribute these to my predecessors.

Top-dressing.—Several writers I consulted, recommended top-dressing. It seemed to be a question not entirely settled, whether this dressing should be applied in the spring or fall. It was admitted that many instances of success in applying manure to meadows in the fall had been known, but it was strenuously urged that a very large per-centage of the fertilizing qualities of the manure would escape in the atmosphere and be lost to the soil, if spread over the land in the fall, and left exposed to the winds and rains of winter. My judgment yielded assent to the arguments in favor of spring dressing, and I adopted it.

How applied.—Having purchased of my nearest neighbor about 100 loads of well-rotted manure, which had accumulated by his cow stable during the two preceding years, (which he said he did not *need*, as his farm was rich enough without it) and finding in the old barn-yard of my predecessors, another 100 loads, I had it piled up in several large heaps upon the meadows in the fall, and well covered over with sods and earth gathered from the old pastures. In the spring the whole was thickly spread over the meadows. The drag was then applied, and afterwards the whole was carefully bushed in.

The Result.—Having done this work thoroughly, and been at considerable expense, I waited confidently for the crop. It was an *entire failure!* I do not think the crop was very much, if any, increased by the application. I did not get one ton of hay to the acre.

Instead of those prolonged spring rains, which according to the books, were to soak the fertilizing properties of the manure to the roots, came only small showers, followed by dry weather, which continued through the summer. The gasses evaporated, the manure dried up and wasted.

Reason for the Result.—I attribute the failure of this experiment to the fact, that the manure was applied in the spring, instead of the fall. I am well satisfied, that if it had been scattered over the ground in the fall, and left to the influences of the *fall* rains and the dissolving snows of winter and spring, a much larger proportion of the virtue of the manure, would have found the roots of the grass, and enriched the soil. The first appearance of any benefit to the meadows, was after the removal of the hay crop, and the late rains came on.

The Season.—It must be admitted, that the last was a very unfavorable year for trying such an experiment, on account of the prolonged dry weather of the summer. Some may have succeeded better than I did even last year, and it is quite probable that many of your readers have in former times, realized far better results from top-dressing in the spring. From my own experience, however, I must say, if manure is to be applied to the surface of meadows at all, *apply it in the fall.* Civis. *Utica, Jan.* 16, 1855.

Guano for Corn.

One of our neighbors let a piece of land to be planted upon shares with corn. He proposed to the laborer to try an experiment with guano on one portion of the field—should think about one-fourth—while the other portion received a good coating of yard manure. The field being well prepared, and marked out so as to show the place for each hill, about one table spoonful of guano was dropped in each place. It was then well mixed with the soil of the hill with the hoe. A little fresh dirt was then hauled over the compost thus made, and the corn dropped and covered. The result was such, that the owner offered to take the guanoed portion for his half of the crop. The laborer agreed to his proposition; and the owner actually got more corn from his part than the laborer did from the whole remaining portion of the field. This mode of applying guano is slow, but we think it amply compensates for the extra labor. Wm. E. Cowles. *Canton, Ct., Jan.*

Ipecac and Nitre for Croup.

In answer to the inquiry in our last, the non-resident editor of this paper states that he has used this remedy in his family with great success for the past thirteen years, and never in a single case out of many, has it failed in producing immediately the desired result. It has a great advantage over the old "hive syrup" in not producing a permanently injurious effect on the stomach. It is scarcely necessary to add that caution should be used afterwards to avoid catching cold, the pores being open from its effects.

About twenty grains of Ipecac are placed in a two ounce vial, with one ounce of sweet spirits of Nitre, and well shaken together. The vial is then filled with water, and it is ready for use, care being taken to shake it up well just before pouring out a dose. One fourth of a tea spoonful may be given to a child a year for two old, and twice that quantity for one three or four years old; repeating the dose every fifteen minutes till vomiting is produced. This usually produces immediate relief, and in a few hours, the disease if taken early, entirely passes off. This has never been known to fail in any case of incipient or spurious croup, known by the hollow sonorous cough. In malignant or genuine fully formed croup (marked by the formation of the peculiar membrane in the wind-pipe) it is doubtful if any remedy will cure.

Cultivation of Squashes.

John McKee of Bristol, Vt., who raised the large squashes mentioned in the last volume of the Country Gentleman, page 330, has kindly furnished us with his method of cultivation, as follows:

As soon as the ground is warm enough to insure quick germination, I dig, on a southern exposure, holes two feet deep, and two feet apart each way, excluding the bottom soil, and retaining the top. The holes should be filled within ten inches of the top with well rotted hog or stable manure; the former I prefer. The holes should then be filled up with the top soil taken out, and be allowed to remain three or four days till the hills are thoroughly warmed before planting the seed. Care should be taken to plant the seeds at the proper depth to insure their coming up—in a warm, dry soil from two to three inches, in a cold, wet soil from one to two inches deep.

As soon as the plants appear above the surface, place four bricks, blocks of wood or a small box large enough to place a pane of window glass upon; this will force them along rapidly, and protect them from the depredations of the bugs, &c., They should be watered once a day, till large enough to dispense with the covering, being careful not to apply cold spring water, or at a time when the sun shines upon them. Morning or evening should be set apart for this. I think one good healthy plant in the hill sufficient, as it will produce larger squashes. When the plants begin to cover the grounds, cut off all the runners from the main vine except two or three nearest the root, as these will set first and produce the best. Not more than one or two squashes should be allowed to grow on a vine. Soap suds, or liquid manure, is an excellent application for them while growing, being careful not to apply it too strong, or on the leaves.

Manuring the Pear.

Messrs. Editors—We see it stated on all hands, by Horticulturists, that *Pears* require "high cultivation." We have here a warm dry loam, with coarse gravel subsoil. Can you not in a few words give us the definition of this term, in its application to our soil? and oblige. A Subcriber. *Oxford, Mass. Dec.*

There is very little soil in any of the eastern states that does not need manuring for the successful cultiva- of the pear. The size of the fruit depends much upon it, but the flavor still more. Some of the finest pears in existence are nearly worthless with a poor soil and poor cultivation.

Farm-yard manure forms the basis of the best fertilizers. We have found nothing better than a compost made by depositing successively *thin* layers of old-pasture turf (or from fence corners,) and stable manure in about equal proportions, with, say one twentieth of leached ashes; ground bones, night-soil, charcoal dust, lime, street sweepings, &c. when easily procured, may be added with advantage. It should lie at least several weeks, and months would be better. The soil should be trenched, or plowed deep, and the compost mixed thoroughly through it. Liquid manure if strong enough, exerts a quick and powerful effect, possessing, as it does, three advantages over solid manure, namely, irrigating as well as manuring, passing at once into contact with the roots, and becoming equally and intimately diffused through the soil, more perfectly than any solid can be intermixed. If too strong, or too frequently or abundantly applied, it will kill trees.

It should be always borne in mind, that thorough cultivation, for the complete destruction of grass and weeds and for keeping the soil loose and mellow, is absolutely essential, and that without it, manure is of little comparative value.

Fruit Crop in Michigan.

With the exception of some injury by the apple worm, and to the plum by the curculio, this can be reported as splendid—not to be surpassed if equalled by any country; of all varieties, from the luscious strawberry, to the delicious peach and pear and health-imparting apple. Large quantities of the latter fruit have been shipped the past season, mostly to the west, yielding to the farmer as great a sum, and a much larger profit, than the surplus wheat crop.

While speaking of fruit, I wish to enter my protest against the use of quince stocks for the pear, for extensive cultivation. They are a decided failure in this region; three-fourths of them dying out the first or second year, and hardly any remaining healthy unless taking root above the insertion of the graft. The pear root is decidedly preferable, leaving the branches as near the ground as possible with *continued* high cultivation, and judicious pruning, and thinning of the fruit when over-loaded. Trees often bear themselves to death, other varieties as well as the pear. B. F. Harvey. *Salmagundi, Lenawee Co., Michigan.*

There are several reasons why pear trees on quince stocks do not succeed. A common one is deficient cultivation, or no cultivation at all; for the short and thickly set roots must be abundantly supplied with enriching materials, as they do not, like other roots, go far in search of nourishment. Another reason is the selection of wrong varieties; many of which will flourish for a short time and then perish, succeeding best while young and in the rich soil of the nursery, but immediately declining when removed to the neglected orchard. A third reason is the use of the wrong kind of quince for stock; a very few varieties will do well on almost any sort; but most varieties, even among those well adapted to dwarfing, will sooon fail when not worked on the best French stocks. How far these influences may have operated in producing the losses spoken of by our correspondent, we can only know by further investigation, but it is hardly probable that "three-fourths," would "die out the first or second year," without their share in the unfavorable influences, when we remember that in western New-York, with a climate so similar to that of Michigan, immense numbers are now in successful cultivation, without a loss, when properly managed, of one in a thousand, except where the epidemic blight strikes them, and to which pears on their own stocks are equally liable.

Setting Out Large Trees.

There is a foolish eagerness with many persons, to set out *very large* fruit trees, with an expectation that they will be the soonest to bear. We know a very enterprising planter, who was determined to have his grounds not only planted at once, but to have large trees without waiting for them to grow. At great expense, he procured every tree he could find of large size and removed it at once to his grounds. Nurserymen had nothing large enough for him. Two or three years afterwards, observing him buying trees of moderate or small size, we asked him the meaning of his conduct. "Oh, I have had enough of big trees!" This was all he said, but it explained all. We observe in the last number of the New England Farmer, a statement to the point, from a correspondent. He says that five years ago he set out over a hundred apple trees. "Part of my trees were *large*, and a part *small*. The smallest have done the best; indeed, the largest tree in the orchard now, was one of the smallest when planted."

New Summer Apple.

H. Stearns, of Felchville, Vt., sends us the following description of a summer apple, which has long been cultivated in Vermont, but not described in any standard pomological work. Perhaps this notice may lead to the discovery of its true name, if already known, or else become the means of introducing it for further trial among cultivators.

"It was originally called the *Summer Harvey;* and trees have been sold by some nurserymen as the Early Harvest. I am not certain but this is identical with the "Primate" of Thorp, Smith & Hanchett of Syracuse. The tree in question is of straggling, yet rapid growth, of dwarfish habit, comes very early into bearing, and is a prodigious bearer. Fruit of the largest size, first-rate for cooking or eating, greenish yellow when ripe, continuing green around the stem, of a high tart flavor, ripening from the middle of July to the middle of September. The best early market fruit in Vermont.

"Now if any one sends from Vermont to New-York or Massachusetts for *Early Harvest* trees, expecting to get the variety described above, he will be disappointed, as the Early Harvest of those nurseries is what is here called the Yellow Harvest, a fruit scarcely worth cultivating in this region."

The Black Gum on Peach Trees.

Last year I noticed a disease which had shown itself among the peach trees in this vicinity, and which was noticed in the March number of the CULTIVATOR. The fruit last year, wherever the trees were much affected, was entirely destroyed, while others bore but two or three here and there. At the present time the bark of some of the trees looks as if scathed by fire, and last year the trunk, (from the many exudations of the saps,) presented during the warm wet days of spring, an ulcerated character. In some respects the disease resembles the black knots, which often cover the damson plum tree, and there are grounds for believing it to be analogous, but whether caused by the same insects remains to be shown.

Some years ago, the Morello cherry became in all this region of country affected by the black knots, and, wherever it was not watched, covered the trees, and soon left them leafless and disgusting objects. If the disease can diffuse itself from the plum to the cherry tree, why may it not also to the peach ? As a general rule, it is true, that each species of trees have insects that feed on them, peculiar to the species; but there are exceptions to general rules, and we find the common caterpillar feeding on the leaves of the apple, pear, and cherry.

It is yet a disputed question, whether the knots on the damson plum are caused by an insect ; for although the curculio eggs have been found in the knots, it is under such circumstances as would not lead us to infer, that the excrescences are its work. The aspect of the interior of the knots look as if made by insects, and these may be so minute, as to escape detection by the naked eye or a common microscope. In all these fruit trees the foliage of the sap appears to be arrested by the compression of the fibers of the wood.

I have noticed that a number of gardens west of mine, have a great many plum and Morello cherry trees completely covered with the black knots; and the prevailing wind is a north wester. The peach trees, east and south of these gardens, as far as I have observed, with a few exceptions, exhibit the disease of the black gum ; while those north and west are sound, and bore last year good crops. Hence, I would argue, that the insects are borne on the wind from tree to tree. In my own garden, I mentioned last year that some trees were diseased more than others, which I attributed to their bearing early or late fruit; but which I now think, is owing to their location with respect to the wind. I should mention the fact, that I have green and yellow fruited plum trees in the same garden, which exhibit no appearance of the knots; and an individual told me this day, that he had plum trees covered with the knots in his garden, intermixed with peach trees, and yet his peach trees were sound. I do not at present see how to reconcile these facts, but further experience may show whether or not, the disease mentioned is the same with that of the purple plum.

I have tried ashes, lime, and washing the trunks with sulphate of iron with some apparent benefit, but without any radical cure. H. *Carlisle, Pa., Jan.* 6, 1855.

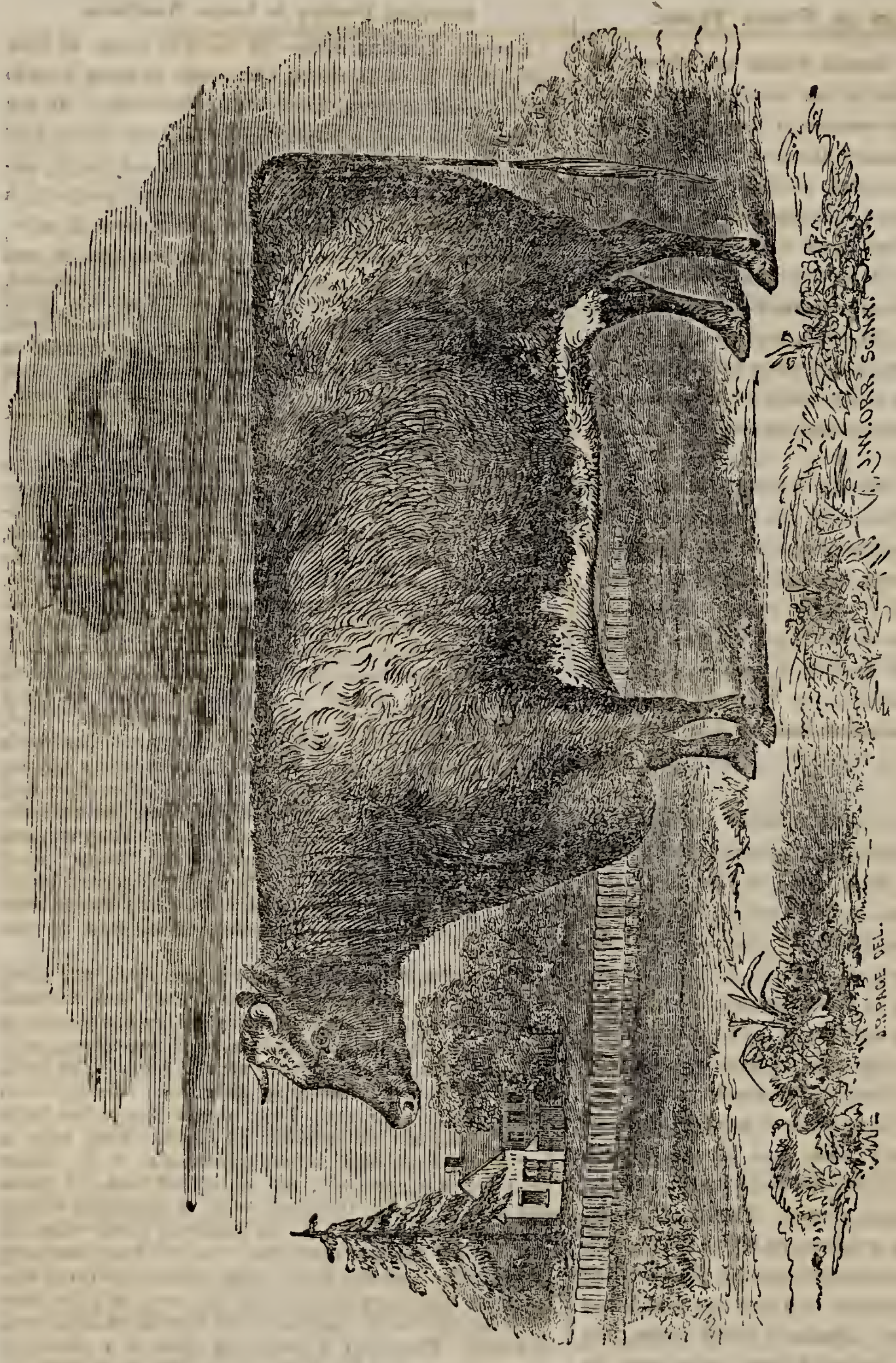
Keeping Poultry in Large Numbers.

LUTHER TUCKER, ESQ.—In the Co. Gent. of 25th inst., D. H. R. of Hartford, Ct., wants to know *how* to build a chicken house for "about 1000 fowls." If my poor opinion is worth anything, *he will not build it at all.* Fowls, in any large number, will not thrive, unless they have a *wide range.* They are, partially, a *grazing* animal. When the ground is bare of snow, in winter, they pick the grass if they can get it, and are fond of *green* vegetables of any kind. In summer, they pick and eat grass every day. They are great scavengers after slugs, insects, and all kinds of flesh. They are better, also, for having some flesh food in winter ; and abundant *air*, *fresh* and *pure*, they must have, *always.* Although I have seen it tried, I never knew a large collection of several hundred fowls, succeed *in a confined place.*

A few years ago some enterprising man from the country came near town, and enclosed an acre or two of ground with a high picket fence, and put up a building, at an expense of near or quite a thousand dollars, intending to supply eggs for the Buffalo market. He had his barn well done off with any quantity of roosts, nesting places, and other conveniences. He started his concern with seven or eight hundred chickens, and for a few weeks, crowing, cockfighting, laying and cackling went on to his heart's content. He had food of all kinds for them, and great anticipations were indulged of fortune-making in his chicken enterprize. But, three or four winter months told the story. The fowls got diseased—the hens first eat the feathers off the *roosters*—or what were left of them after they had *fought* themselves almost bare, and then the hens unfleeced, in the same way, each other. They stopped laying, were tormented with lice, got the "roup," went moping about the place, and died off like a pestilence; and by spring, but a few miserable, sickly things were left, with scarce life enough in them to crow up the morning!

The difficulty was not in want of food, nor care. But, from the necessity of the case, they were crowded in their roosts ; they were disturbed by each other in their nests, and had not room enough any where, even with the outside range of an acre of land. The truth is, that to flourish, hens must have their *liberty*, when kept in large numbers. They want to range the fields by day, and not be crowded at night. They want a *variety* of food, and to *help themselves* to it. They need *exercise*, pure air, and enough of both. I knew one man, or rather the man's wife, in the Scioto Valley in Ohio, who kept five or six hundred fowls—that is, she told me she had that many—and I don't doubt it, for the whole territory, for acres about the farm, was speckled with them by day, and the trees, and the corncribs, and the barns, and the sheds were filled with them at night. They had a great big farm of a thousand acres, or more, and full corn cribs for many rods in length, where the hens went at pleasure, and they made nests under the trees, and among the bushes, and all about the buildings, and in the back kitchen, and just where they had a mind to : and they sat on their eggs, and hatched out their chickens at will—a self sustaining poultry establishment, in fact. This plan worked ; but as to the *profit* of it, I doubt whether the old lady could give any intelligible account in the matter.

No ; I believe the only way to make poultry profitable, is to keep them in the "old way." Proportion the number to the ground and buildings you have. Give them liberty to run at large for a portion of each day in warm weather, with comfortable quarters in winter, and pure air, always. I have known sundry other enterprizes, like the Buffalo one I mention, tried ; but I never knew one *permanently* successful. They were all in turn abandoned. Yours truly, L. F. A. *Black Rock, Jan.* 2, 1855


J.R.PAGE DEL.
J.W.ORR Sc.N.Y.

Prize Cow Bloom, Imported by L. G. Morris, Esq.

"Bloom," whose portrait we give above, was the winner of the 1st Prize in the imported class, at the N. Y. State Ag. Show, held at Hamilton Square, New-York, in Oct., 1854. She is the property of L. G. MORRIS, Esq., of Mount Fordham, Westchester Co. N. Y., by whom she was selected, and imported in 1852.

"*Bloom*," Red roan, calved January, 1850; bred by Mr. Fowle of North Allerton. Sire, Sir Leonard, (10,827.) Dam, Elvira by Eolus, (3733.)—G. d. Golden Pippin by Belvidere 2d, (3126.)—Gr. g. d. by Alive'O, (2995.)—Gr. g. g. d. by Eclipse, (236.)—Gr. g. g. g. d. by Charge's Grey Bull, (872.)—Gr. g. g. g. g. d. by the Paddock Bull, (477.)—Gr. g. g. g. g. d. by Browne's Red Bull, (97.)

List of Profitable Apples.

A Vermont correspondent, speaking of the most profitable apples for that state, makes the following remarks:—

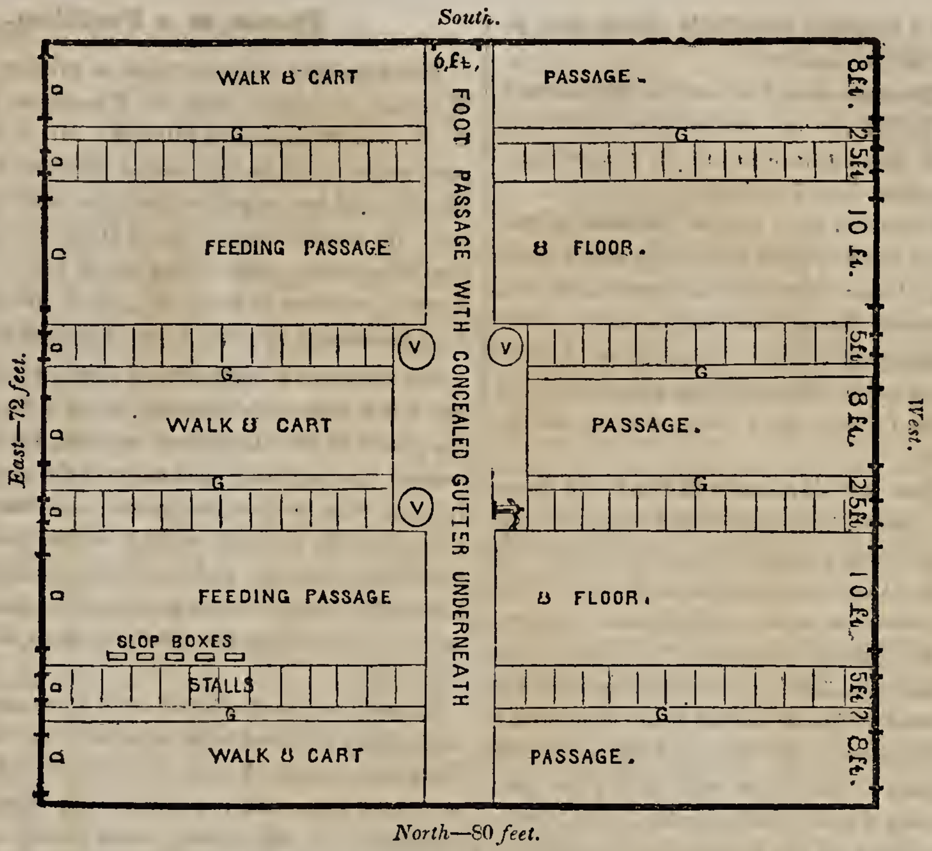
"The Baldwin, Roxbury, Russet and R. I. Greening are decidedly the best apples that can be raised in New England. From what experience I have had in fruit growing, the reply the man made when his advice was asked what varieties he should select, was not so very absurd after all. Says he, "If I were going to set out one thousand trees, I should choose nine hundred and ninety nine Baldwins, and I should not be particular about the rest." Nevertheless, after getting these useful kinds, we must have a few fancy trees."

Scratches.

MESSRS. EDITORS—The following ointment has cured horses for me at as many as three different times, of this troublesome complaint. Only three or four careful applications of it were required. It was put on at night, after washing off all the dirt with soap suds, and rinsing with clean water. It is said that grease alone will cure the disease if used after a washing at night.

Take of flower of sulphur,....................	¼ lb.
Saleratus,....................	2 oz.

Powder and mix them, and stir the mixture into one pound of melted lard, stirring until cold. A SUBSCRIBER.



Plan of a Dairy Barn.

Messrs. Editors—It has been said that it is easier to pull down than to build up—to find fault with existing things than to devise better. It may be so with my objections to the great "octagonal barn." Yet, in accordance with my promise, I herewith transmit to you a rough draft of the ground plan for a *dairy* barn, which, to my eye, possesses some material advantages over any plan that I recollect to have met with in print. I do not, however, claim originality for the plan, for up in Cheesedom (the Western Reserve) a large number of dairy barns have within the last few years been erected, substantially on the same principle. And here let me say that it is the practice there, especially in large establishments, to put the cows in the stables night and morning to be milked—in the summer as well as winter. This is considered an improvement on the old fashioned plan of milking in the *mud*.

The plan I send you is designed for a "bank barn." The ground should descend to the south or east if possible. The entire lower floor, as will be seen, is devoted to stables and fixtures for convenient attendance upon the cows, and consists mainly of two double rows of stalls or stanchions for securing the cows, and two feeding passages, and three walks or cart ways, to facilitate the removal of the manure—also gutters are placed immediately behind the platforms on which the cows stand. To facilitate communication between the different parts of the establishment, a transverse passage is shown 6 ft. in width, and extending the entire width of the building. Beneath the floor of this passage should be placed an ample gutter for carrying off the liquid from the other gutters, which should terminate in a tank at the south end. Here also would be the proper place for the manure heap, provided the manure is to be removed from the stable by wheel barrows, for no manure should be allowed to accumulate in the yards frequented by the cows.

Near the center will be perceived three large vats or tanks, and a pump. These tanks are for the manufacture of slops, and should be sunk in the ground so as not to freeze, and must be placed so as not to interfere with the cart passage or gutters.

Stanchions three feet apart, are the best fixtures for fastening the animals, and the feeding floors should be smooth and clean, and *raised* two or three inches above the platform on which the cows stand. If slop is to be fed, small boxes may be placed with their upper edges nearly even with the floor. The position of the doors is plainly indicated in the plan; also the width of the several parts.

This lower story should be made of substantial materials, and if of wood, so constructed as to be capable of easy renewal.

The second story is simple and easily supplied and arranged by any one to suit his own taste and convenience. The most simple and perhaps satisfactory plan would be, to have a threshing floor 16 feet wide, extending through the center, the whole width of the building. On each side of this floor, and corresponding with the feeding floors below, should be placed scuttles through which to pass down the hay and fodder. On one side and over the central cart passage, should be placed the granary, with small traps below to supply the slop vats.

In a building of this size, some might prefer two floors instead of one, and a division of the hay bays.

This, as well as a thousand other little things, may be left to the taste of the proprietor.

The walls of this story should be carried high enough to hold enough fodder for the entire stock the whole season, which, if the roof be carried up in the usual way, may be no more than 8 or 10 ft.

Ventilation is secured by a row of windows in the lower story above the doors and around the entire sides of the building—thence through the scuttles in the second floor—thence through the cupola in the roof. Of course any amount of architectural finish and beauty may be bestowed upon this building, consistent with the means of the farmer, there being nothing in the *form* to prevent.

Now in this plan there is room for 92 head—by dropping the slop vats, 4 more would find room, and by omitting the transverse passages the number might be increased to 104. The whole building is 80 by 72 feet, and of course covers an area of 5,760 feet, against about 8,200 in the "great octagonal;" and here in all modesty let me ask, what substantial advantage does that possess which does not equally belong to my own plan? Many eminent farmers would effect a large saving of room by preferring to remove the manure in wheel barrows or by having a cellar underneath. This would allow of a narrowing of the passages to the extent of about 15 feet, which would reduce the area to 4,560 feet. In what form can a greater amount of "elegant entertainment" be provided, in the shape of a barn for a stock of cows? And here I wish to impress upon the minds of my brother farmers the idea of COMPACTNESS, as connected with all their farm buildings. *If you would wish to secure the highest economy in buildings, combine as much as possible under one roof, and then put it in as near a square form as convenience will allow.*

The plan I have submitted, may be easily modified so as to accommodate a mixed stock—horses, oxen calves, sheep—every thing kept on the farm except pigs and poultry; they should have a seperate building by themselves. The different kinds could have apartments fitted up for their special accommodation, and all being in compact shape, can be easily attended.

But I must close—the subject of farm buildings is one big with interest to the farmer, and cannot be disposed of well within the limits of a common newspaper communication; but if you will publish this, Messrs. Editors, I will promise not to say any more without your leave, about "octagonal" or any other kind of barns. HAWK-EYE. *Keokuk, Iowa, Dec.* 27, 1854.

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Turkeys to Kill Grasshoppers.

I would advise your correspondent from Kentucky who is annoyed with grasshoppers, to keep on his premises a flock of turkeys. I was surprised a few years ago, at seeing large flocks of turkeys in the meadows of a neighboring farmer, an enterprising, close calculating man. He told me that they had been annoyed with grashoppers, and that by keeping turkeys a few years, he got rid of them I have since kept a flock on my farm, and think they more than pay their way, especially where a farm is infested with grasshoppers. WM. COWLES. *Farmington, Ct.*

Plaster as a Fertilizer.

The following extracts from a private letter from WILLIAM GARBUTT, ESQ., of Wheatland, Monroe Co., N. Y., will be read with interest. Mr. G. is one of the most experienced and successful farmers of that fertile district, and has experimented considerably with plaster. He would, however, have it distinctly understood that his opinions refer to the use of plaster on his soil, location, rotation of crops, &c., all of which, he thinks, may materially alter the value of plaster to the farmer.

Plaster is not a fertilizer; it does not enrich the soil; but it is a powerful stimulant, owing to its operation on the gasses in the atmosphere and soil, by which it increases the vegetable production of the plants, generally more than it does the grain; and this increase of the vegetable productions adds to the quantity of the barn-yard manure; and to all who are careful in preserving it, and judicious in its application, this is one of the greatest benefits resulting from the liberal use of plaster.

On wet land, and alluvial soils, or on ground that is bountifully supplied with vegetable mould, plaster has little or no effect; but on dry, sandy and gravelly, or even clay soils that are deficient in vegetable mould, its effects are astonishing, and a liberal application of it always remunerates the farmer for the expense.

The time of sowing is not very material, providing that it is in season for the young plants to receive the benefit of it. Plaster is not lost by being put on to the ground before vegetation requires its assistance; if it is not used by the plants the first season, it will be the next, for a bountiful supply of it will last for three or four years; but I think that the best time to apply plaster to the soil, for the benefit of any grain crop, *and especially wheat*, is, to sow it before plowing. I invariably sow mine in the spring, before breaking up. A liberal supply of it, put on at once, will answer for three years, as well as to apply it each season, which is a saving of labor. I sow out of the wagon, always before plowing, at the rate of from two to four bushels or cwts. per acre, as the wants of the soil may require. The more there is applied at once, the longer it will last; but as the soil becomes supplied with plaster, or vegetable mould, its effects are lessened, and its frequent application not so necessary.

An application of plaster to the barn-yard manure is very beneficial, it fixes the ammonia, and hastens the decomposition of the dried vegetable matter, and increases very much, the fertilizing properties of the manure. I apply it twice during winter, or rather towards spring when the manure begins to ferment. I put it on the heaps by the stables, and all over the yard, and in the spring, when the manure is piled up, give the heaps a covering with it, using a ton of plaster to one hundred loads of coarse manure. Do not apply it on the sheep yards, until the sheep have gone to the pasture, for it injures the wool if they get among it.

One season, I put five tons of plaster on three hundred loads of manure, over the yards, and over the piles, and applied the whole on ten acres of dry, gravelly soil in the fall, and plowed it for the next spring's hoe crop. I had three bountiful crops of grain, corn, barley and wheat—one of clover seed, and a plentiful season of pasture, without any other application; but all the four seasons were favorable to the producing of bountiful crops; yet I am fully satisfied that a liberal application of plaster to the barn-yard manure will liberally remunerate for the labor and expense of applying it. W. GARBUTT. *Wheatland, Jan.* 29, 1855.

Best Sheep for New-England—II.

Messrs. Editors—I send you the comparative consuming qualities and profits of the Merino and New Oxfordshire sheep, deduced from actual experiments; and here allow me to remark, if there are any farmers who are dissatisfied with the present returns from their fine-wooled flocks, they will please give this communication their careful attention. If, through the medium of the Country Gentleman, I can be the humble instrument of inducing a single person to introduce upon his farm a breed of sheep which will afford double returns, for food and labor expended, the object of these communications will be attained.

It is the general opinion among farmers, that large animals will consume as much more food than small ones, as their comparative weights differ. Should this argument prove true with two animals of the same species, (which I think is very doubtful,) it would be a still greater absurdity, to suppose that the consuming powers could be determined by the weight of so different species as the New Oxford and Merino. These two breeds have been trained for different purposes,—one for its thick coat of fine wool, without regarding its fattening propensities—the other, for a heavy carcass, without so much attention to the quality of its wool. I think, however, that according to food consumed, there is no breed of sheep which will produce more worth of wool than the New Oxford. A good flock will average 8 pounds easily, and will readily sell for 30 cts. per lb.

The experiments between these two breeds have been very carefully and accurately conducted, in the following manner. Selected ten Merino ewes, four years of age, in perfect health: also, at the same time, selected eight New Oxford ewes about the same age; had them placed in comfortable quarters, and well watered. Commenced with each lot at the same time; weighed an equal amount of hay for each, from the same place in the mow, and continued the experiment for seven successive days, giving them hay enough so as to have them leave a little every day. That which was left was weighed and credited to each flock. The following result has been obtained:

10 merino ewes, weighing 769 lbs., consumed in seven days,....................................	160 lbs. hay.
8 New Oxford ewes, weighing 1068 lbs., consumed in the same time,....................	140 " "

From this experiment, we learn that 9 New Oxford ewes with an aggregate weight of 1201 lbs, consume no more food than 10 Merino ewes, weighing 769 lbs. The relative profits of these two breeds may be set down as follows:

For the ten merino ewes, 50 lbs. wool at 40c. per lb.,	$20 00
8 lambs, at $1.50 each, ...	12.00
	$32 00
9 New Oxford Ewes will shear 63 lbs. wool, at 30cts.,	$18.90
14 lambs, at $3 each,..............................	42 00
	$60.90

In this statement I have given the highest figures we have been able to realize from Merino ewes, that have been carefully bred for a long course of years Few sheep in this country will come up to it.

In figuring up the profits from the Oxford ewes and lambs, I have endeavored to set the amount low enough to insure equal results to any farmer who possesses a soil of medium quality. In the richest grazing districts, the profit would greatly exceed the sum I have set. There are many instances of these lambs attaining to over one hundred pounds weight, on nothing but the milk which the dam afforded, and common grass pasture. The largest lamb in our flock last season, (which was very dry,) weighed 104 lbs. at 7 months of age.

The scarcity of these sheep in this country, and the high prices at which they are held, prevents the possibility of stocking our farms very plentifully with them at present. The best way for a general introduction of this blood at a cheap rate, is to cross them on to our Merino ewes. It is the opinion of many that so large a breed as the Oxford—and other long wooled species, would increase the size of the lambs so as to cause trouble at the time of parturition, but from the experience I have had with them the past season, such fears are without foundation. This cross produces lambs but very little larger than the Merino. The experiment with farmers in this section has proved very satisfactory. The lambs are extremely hardy. They will thrive on less milk, are more quiet in their habits, the size is greatly increased, and the mutton is superior in quality.

These half-blood ewe lambs should all be saved, and when old enough, coupled again with a full blood buck, having no relationship; and by repeating this process, always breeding towards the thorough bred Oxford, a beautiful flock of sheep can be obtained at a moderate cost. Good bucks can be obtained at prices varying from twenty-five to fifty dollars. Some extra specimens have been sold as high as one hundred and fifty.

Now let two or three farmers in a neighborhood club together, and purchase a buck of this or some other mutton breed, and the price shared by each one equally, would hardly be felt, and the increase on the size and thriftiness of the lambs, would nearly, if not quite pay for the buck the first season. A buck fully matured, and fed high, will serve a pretty handsome flock.

These sheep possess qualities and attractions which entitle them to the highest rank among our domestic animals. They are just suited to farms of moderate extent. The owner can realize from a few of them, a very handsome income, nearly all ewes of good size bearing twins. Their great square forms, and snow white fleeces, forming a pleasing contrast with the green pastures on which they feed.

They are orderly to a fault, having never caused me the least trouble. They are always found in the pasture, if the fence is passable. They can be managed by any young child, being fond of society and the caresses of the master.

Gentleman farmers, who like to see fine stock growing up around them, should by all means own a few of these sheep. I have never known an instance af a man becoming dissatisfied with them.

I had supposed, before I commenced breeding these sheep, that they were rather dainty in their feeding habits, and would require the best of keeping in order to make them thrive. This however is not the case. They rather choose the coarser weeds and brakes, a part of the tims, to the best of hay.

The man who makes "two blades of grass grow, where one grew before," has been justly entitled a "benefactor of his race." Equally so, the man who spends his time, in breeding and diffusing a race of animals, that will make this extra blade of grass return double the profit to its owner. Lawrence Smith.
Middlefield, Mass.

A Fine Pig of his Age.—The *Massachusetts Ploughman* says "Mr. Willard Arnold, of Marlboro', slaughtered a pig, on the 22nd inst., that was only eight months old, weighing three hundred and eighty-eight pounds. The breed was a cross of Suffolk and Mackay."

Query—Was 338 lbs. the weight of the live or the dressed hog? If dressed, as we should infer, it is, as a Dutchman would say, a pretty *pig* story.

Mr. W. G. Lewis, at a recent "Framingham Agricultural Meeting," stated that turnips cut up raw were an excellent food for fattening ducks.

Inquiries and Answers.

Canada Thistles.—(*John Feere, Crowland, C. W.*) We can recommend nothing better to kill Canada thistle than good plowing and thorough tillage. If the soil is heavy, a good summer fallow, say three plowings, and the necessary harrowings, &c., will generally prove effectual. If the land is too light to summer fallow to advantage, plant it with Indian corn, or some other hoe crops, two or three years in succession, working the land thoroughly during summer, with the horse and hand hoe. We have known a field, infested with thistles, rendered free from them by growing a heavy, *smothering* crop of peas. It is said that a good deep plowing with the Michigan double plow, is an effectual means of destroying thistles. At all events, it is worth the trial, since it will benefit the land should it not destroy the thistles.

C. F. J., Boston.—We have sent your letter to Mr. Marks, Fairmount, Onondaga county, N. Y. Such cows as you refer to, are rarely met with.

Gas for Country Houses.—*C. E. Kimball, Berryville, Clarke Co., Va.* The apparatus you refer to, was one for the manufacture of gas, from a resinous liquid called Benzole. It is patented by Mr. O. P Drake, a practical electrician, of Boston, who will doubtless supply you with the information you desire.

Michigan Double Plow.—(*A Subscriber, Montreal.*) On "a sandy farm, with a hard pan subsoil," we should prefer in most cases, the ordinary subsoil plow,—which simply breaks the subsoil,—rather than the Michigan double-plow which brings the subsoil to the surface. The Michigan double plow is particularly adapted for breaking up and pulverizing the soil to a great depth, and for smothering weeds, &c. Wherever deep plowing rather than subsoiling, is required, the Michigan double-plow is the best implement we know of. It is manufactured by Prouty & Mears of Boston, and is for sale at all agricultural implement stores. Price without rigging $12; all complete $14. Ruggles Nourse & Mason of Worcester, Mass. have good subsoil plows. Price $5. to $13, according to size.

Side-hill Plow.—(*Luther Bailey.*) We cannot say "which is the *best* side-hill plow," but the "Sod or Side-hill Plow, Eagle 83," manufactured by Ruggles, Nourse & Mason, of Worcester, Mass., is a very good one. Price $10,50. You will find it at any agricultural implement store.

Dairying—Feed Mill.—(*John F. Neel, Streets Run, Alleg. Co. Pa.*)—We do not know of any single work on dairying that comes up to your requirements. We can send you by mail, prepaid, for $1, "Evans' Dairy Manual," which contains much useful information. You will find an excellent scientific treatise on cheese and butter making in "Johnston's Agricultural Chemistry," which we can send you prepaid for $1.50.

"Maynard's Patent Spiral Corn and Cob Crusher and Grinding Machine," manufactured by R. Sinclair & Co. of Baltimore, Md., is highly spoken of. Its price in this city is $35. The "patent Conical Mill," manufactured by Charles Ross, Rochester, N. Y., is highly recommended by those who have used it as well adapted to grind and dress wheat, or corn for family use, as well as for crushing all kind of grain for farm stock. There are two Cincinnati Burr stone mills,—Straub's Patent, and W. G. Burrows' Patent,—which are said to be excellent. The price is from $100 to $200.

Corn Ground in the Cob.—(*R. Greene.*) We have never heard of any injurious effects from feeding corn ground in the cob to horses We have fed considerable corn ground in the cob to seven horses, two of which had recently come from Indiana. This span manifested a decided preference for pure corn meal, and still more for corn in the ear, but the others eat the corn and cob meal without any difficulty, and did well on it. We think there is less advantage in grinding the corn in the ear for horses and pigs, than for the ruminant animals.

Price of Wool—Fat Sheep.—(*C. H., Rutland, Vt.*) The price of wool, after another shearing, depends on so many circumstances which it is impossible at present to foresee, that we can give no satisfactory answer to your question. We have little hesitation in saying that "the demand for fat sheep and lambs this year," will be full as "good as usual."

Manufacture of Home Poudrette.—(*T. M. F., Belchertown, Mass.*) You will find an article on this subject in the June No. of the Cultivator for 1854, page 176, or in the third volume of the Country Gentleman, page 277. You will find an article on the manufacture of superphosphate from bones in this number.

Commercial Poudrette.—(*A. S. M., Fredonia, N. Y.*) The "common poudrette of commerce" is usually not as good as it might be made; but we question if a good article *can be made* cheap enough to compete with Peruvian guano. If the barn-yard manure is good, made for instance by grain fed horses or cattle, or still fed cows or hogs, it would be much cheaper at 50 cents per load, than any poudrette, guano, or other artificial fertilizer now in market.

It will be cheaper to grind the slaughter-house bones in the plaster mill, than to dissolve them in sulphuric acid at five cents per lb.

Ketchum's Mower.—I wish to purchase the coming season, a Mowing Machine, and of course want the best. Do you know of any thing better in that line than Ketchum's? A. A. C. [We do not.]

Hominy Mill.—I observe in a late number of the Country Gentleman, some inquiries in regard to a Hominy Mill or Machine If you obtain no reliable information on the subject, your correspondent may do so by addressing J. Blickensderfer Jr. Tuscarawas, Tuscarawas Co., Ohio, who has an excellent machine (patented) in operation, driven by water; but which I have no doubt might be operated to advantage by one of Wheeler & Melick's double Horse-powers.—N. Blickensderfer. *Conneaut, O.*

J. C. F. inquires where he can procure a Mastiff Dog. Can any of our readers inform him, and the price?

☞ We have had several inquiries as to where the Report of the Proceedings of the American Pomological Society at its last session, can be had. Will some officer of the Society, please inform us whether it can be procured by persons not members of the Society—and if so, of whom, and at what price, including prepayment of postage?

White Daisy.—A correspondent wishes the experience of our readers in destroying ox eye or white daisy.

Millet.—Will the correspondent of your paper, who recently recommended millet, be kind enough to tell us where the seed can be had, and what the price is per bushel; and whether he thinks it will do well so far north? I. A. L.

The seed can be procured of Wm. Thorburn, seedsman, of this city, at $2.00 per bushel.

Game Fowls, &c.—We have several inquiries as to where game and other varieties of fowls can be obtained. Breeders would do well to advertise in the Country Gentleman.

Broom Corn.—Will you, or some of your numerous subscribers, give us the best mode of cultivating broom corn? What kind of soil is the best? and would land that has been cultivated a year or two previous, be preferable to sod? After giving it a liberal dressing of barn-yard manure, (it being a rank feeder) what kind of specific or artificial manure would be best to put in the hill? The proper time to break down, the best machine for stripping off the seed, the price and where to be had, &c.? A Young Farmer. *Ct.*

Will some of our experienced correspondents answer the above?

Side-hill Barn.—I contemplate building a barn on a side hill, and wish to make an entrance at the end about 20 feet above the ground floor, for driving in loads, and also wish to use the same floor for threshing. How shall I arrange the barn with the stables on the ground floor, so as to make it convenient for feeding, and at the same time convenient in every other respect? I wish to make the lower story about 10 feet high. L. S. Wells.

Bone Wen.—Henry Lawson of Independence, Buchanan County, Iowa, has an ox with a bone wen on the right upper jaw, and would be glad if any of our correspondents would tell him how to cure it.

Unleached Ashes and Urine. (*A Subscriber, Petersburgh, N. Y.*)—Unleached wood ashes will immediately liberate whatever ammonia there may be in urine united with acids. In the summer season, urine mixed with ashes, emits in a short time, a very strong smell of ammonia, as any one who has tried it must have observed. In the winter the evolution of ammonia is not so rapid, yet the tendency is the same in both cases, and the practice cannot be recommended, except, perhaps, where urine is applied directly to plants, and it is desirable to accelerate fermentation; for urine should always be fermented to some extent before it is used, as it is well known that *fresh urine* proves injurious to plants.

Plaster not always Beneficial.—Will you or some of your correspondents state through the Country Gentleman, the reason why plaster will do no good on our lands here, which are of rather a clay soil. It has been tried as a top dressing for corn. I have tried it as a top dressing on grass lands, sowed it on uplands and on the bottom lands by the river, where the soil was more sandy, without any benefit at all in either case. Yours, J. E. Hanford. *Wakeman, O.*

Little is yet known of the *rationale* of the effects of plaster. On dry uplands remote from the sea, it usually benefits clover, especially in a dry season. On low meadows it is almost invariably of no use; even on uplands it seldom benefits the cereal grasses, such as timothy, red top, &c. On corn, as far as our experience enables us to judge, the action of plaster is very curious and uncertain. It sometimes increases a crop several bushels per acre, and another year, on the same soil, does no good Have you used plaster on clover, and what was the effect?

Underdraining.—You would oblige by informing me what is the best plan for draining land that is level and has no outlet for water except on the adjoining farm? Will a well sunk in the field answer the purpose of an outlet? What is the mode of constructing air drains practiced in England? Are air drains advantageous and can the ordinary tile drains be made to perform both services, i. e. for water and air. By answering the above you will oblige A Subscriber. *New-York, Feb.* 6, 1855.

On many of the English farms wells are sunk fifteen or twenty feet deep, filled with stone, and the water drained into it. The success of the operation depends on the nature of the subsoil. Air drains and underdrains are precisely the same thing. We never knew drains made simply for the purpose of supplying air to the soil; they are used to drain land and for no other purpose, though it is probably true that the air goes up the drains and permeates the soil. Will some of our correspondents give their experience in draining land into wells?

Mowing Machines.—I have just seen in the Country Gentleman, an inquiry whether there is any mower better than Ketchum's. I would say without hesitation, that I think there is. I have tested the qualities of three different machines; therefore think I am justifiable in making the above assertion. I have used Ketchum's, and Manny's, and Manny's improved machines. I have one of the latter, a combined mower and reaper, and can say that it works finely, both as mower and reaper, doing its work with one-third less power than the Ketchum machine, and is as easily moved from field to field as a cart or wagon, without loading or unloading. The machine can be had at Hoosick Falls, Rensselaer Co., of David Ball. J. Wells. *North Easton, N. Y.*

Flag Stones for Stables.—Will you, or some of your correspondents inform me how flag stone would answer for stable floor, for cattle, in a bank barn. A Subscriber.

Corn Planter, &c.—Will you be so kind as to inform me in your paper where I can get a machine that will sow small grain broadcast, and the price. Also I should like to get a corn planter that will plant corn at any distance I might desire, and the price. William Smith. *Benton, Lafayette Co., Wis.*

Will some of our readers answer the above?

Liquid Manure Tank.—My cow stables are built on the side of a hill. And under them I have a cellar for the manure, open on the lower side. I am desirous of putting my manure on the land in the liquid form. Do you think it would be injurious to the cattle to make the cellar under the stable into a liquid manure tank, by building up the wall on the lower side of the cellar. There could be a space kept between the tank and the stable floor, so that a current of air could circulate between them. A Young Farmer. *New-York.*

The liquid manure in a tank, if kept well saturated with gypsum, would probably give off no more ammonia or other gases than the solid manure as ordinarily managed in cellars, and therefore we can see no reason why it should be any more injurious to the animals in the stables above.

Chicken Manure.—A correspondent wishes to know the best method of applying chicken manure. Will those who have experience give their views?

Agricultural Machines.—(*W. H. M., Connellsville, Penn.*) If you will write to the manufacturers they will be glad to furnish you with the desired information.

Tax on Improved Stock.—A correspondent at South Woodstock, Windsor county, Ct. wishes to know if farmers are usually taxed higher for superior cattle, than those who, by indifference, neglect, or want of energy, have inferior stock. It appears that a friend of his has a fine stock of full blood and grade Durhams, and is taxed enormously for them. We agree with him that this is "bad policy," though we are not prepared to say that it is "unjust."

Treatment of Young Fruit Trees.—Will you in your next, give me the best mode of treatment for young fruit trees, say peaches, plums and apples, which have been set out say two and three years? What kind of manure is the best to mix with the soil in the spring? W. P. D.

The inquiry is rather indefinite, and we can therefore only answer in a general way, keep the soil well enriched with manure, mellow, down to the roots, and clear of weeds and grass, by thorough cultivation Probably no manure is better than a compost of turf, muck, and yard manure, and a small portion of ashes Any old or rotted manure is good, and fresh manure properly worked in, usually succeeds well, but the other is better.

Ascent of the Curculio.—Will you inform me through the Cultivator, whether the curculio can ascend from the ground into a fruit tree by means of its wings, or whether it crawls up the body of the tree?

It crawls up the tree, and when the weather is warm, ascends by flying without difficulty.

Top-Dressings for Wheat and Rye Crops.

Messrs. Editors—At a recent meeting of farmers, the conversation turned upon the probability of continued high prices for grain, or of a large demand for all kinds of exportable produce during the coming season. This was generally considered highly probable, even if there should be a cessation of the present war in Europe; and there was an equally general opinion that this prospect of large demands and high prices ought to induce farmers generally to raise as much grain as possible. One member said that in consequence of this prospect, he had already put in as large crops of wheat and rye as he had the means to do. And further, he said he was resolved to make these produce as much as possible, by the use of some concentrated fertilizers to be applied as top-dressing in the spring. He inquired what any of those present would advise him to apply in this way. His wheat was on a clay soil, and his rye on a gravelly soil, with a clay subsoil. As none seemed willing to take the responsibility of advising, or had any knowledge of such a practice, except that some had used a top-dressing of gypsum in a few instances, it was proposed, and generally agreed to, that you should be consulted, and information desired, so far as your convenience and many avocations might permit you leisure for a reply.
A.

Of all the concentrated fertilizers we are acquainted with,—and we have used the nitrates of soda and potash, muriate, sulphate and carbonate of ammonia, bone dust, superphosphate, Liebig's Patent Wheat Manure, soot, rape dust, woolen rags, and a variety of mineral manures,—we know of none, at present in the market, so cheap and good, as a top-dressing for wheat or rye, as Peruvian guano. Sulphate of ammonia is a splendid manure for wheat, but, at present prices, Peruvian guano is a cheaper source of fertilizing elements. Bone dust, applied at the rate of ten hundred lbs. per acre, is a good manure for wheat. The first year of its application, such an amount would probably increase the wheat crop as much as 250 lbs. of *good* Peruvian guano. The bone dust, however, would prove the more lasting in its effects. Could fine bone dust be obtained for $10 per ton, we should prefer it to Peruvian guano at $50 per ton.

But, as we have said before, in most cases Peruvian guano is by far the cheapest artificial manure that can be used as a top-dressing for wheat and rye. We would sow 250 lbs. per acre, as early as possible in the spring. If the guano is good—containing say 16 per cent. of ammonia—and the spring is somewhat wet, we should anticipate from such a top dressing, eight extra bushels of wheat per acre. In an average of seasons a less, rather than a greater increase may be expected. The 250 lbs. of guano will cost in New-York $6,25, and for this you get from six to eight bushels of wheat, and a proportional increase of straw.

The guano should be passed through a sieve, and all the lumps broken. It may then be sown broadcast on the wheat or rye without fear of injury,—for though it will destroy the germinating principle of most seeds, we have never known it to injure growing crops when sown broadcast on them, except, indeed, one instance, where an enormous quantity was used by mistake, probably a ton to the acre, when all vegetation was destroyed. We would advise farmers to mix nothing with the guano, not even plaster, but especially to avoid ashes or lime.

Spring Wheat and its Cultivation.

Messrs. Eds.—There is an article of spring wheat as I have been informed, which is raised in Canada, called the "Canada Club," which has been highly recommended to me; and as I have some thoughts of changing the usual oat crop for some other grain, as a seeding down crop, I wish to learn something more about the above mentioned wheat. Do you know anything about it? Where can it be obtained, if wanted, and at what price?

I notice in the last Cultivator some remarks about a "Tea Wheat;" my queries about this article, are the same as the former. You will very much oblige me, for any information you may give respecting this grain.

Oats I regard as an exhausting grain to soil, and with me grass seeds have not taken as well with oats as with other grain. What think you of the change? Jas. B. Whitcomb. *Brooklyn, Ct., Feb.* 1, 1855.

We have not much acquaintance with the Canada Club wheat, but it is said to be a good spring variety. The Fife wheat, largely cultivated in Canada, we know to be an excellent spring variety. We should not be surprised if it were found that the Canada Club and and the Fife are the same variety. They may be obtained at almost any seed store at a little over the price of common wheat.

We do not know the origin of the "Tea wheat." The same variety of wheat is often grown in different places under different names. Out of 35 varieties of wheat sent from this country by B. P. Johnson, Secretary of the New-York State Agricultural Society, to the Messrs. Lawson of Edinburgh, it was found, on testing them in their grounds, that not one out of the thirty-five was a new variety. The Tea wheat sent us by Mr. Bliven, was a very fine sample, and it is doubtless a good variety, whether new or old. The New-York State Ag. Society, at the last annual meeting, awarded C. W. Eells of Westmoreland, Oneida Co., N. Y., the first premium on wheat, for a crop of "Tea spring wheat." The land the previous year was in corn, well manured with barn-yard manure, and produced a crop of 80 bushels per acre. It was plowed eight to ten inches deep the next spring, and, without any manure, was sown broadcast, April 30th, with two bushels per acre of *Tea wheat*, previously washed in strong brine, and dried with as much lime as would adhere to the wheat when wet. The yield per acre was 38 bushels and 18 lbs. The second premium was awarded to H. Massey of Watertown, Jefferson Co., N. Y.; and this crop also was of "the variety called Tea wheat." The land was a gravelly loam, planted with corn and potatoes the previous year; 20 loads of distillery manure were drawn on to it during the winter; well plowed in the spring, and sown broadcast on the 20th of April with 1¾ bushels per acre. The yield was a fraction over thirty bushels per acre by weight.

Grass seeds seldom take well when sown with oats. We should much prefer to sow clover or grass seed with spring wheat than with oats, though, as a general thing, we believe it is found that seeds do better, sown early in the spring, with winter wheat than with spring wheat, or even than with barley.

We shall be glad of the experience of our readers in the cultivation of spring wheat,—best varieties, &c.

Oil and Fish as Fertilizers.

Oil is composed of the same elements as woody fibre, and like it furnishes, by decomposition in the soil, carbonic acid to plants. The chemical value of carbonic acid none can doubt; probably eight tenths of the dry matter of most of our cultivated plants is derived from it; and its action in rendering the mineral matter of the soil soluble is well known. But the *commercial* value of carbonic acid, or rather of substances which by decomposition yield it, is another question. The atmosphere contains an immense quantity of carbonic acid, and every shower of rain brings it to the soil. Plants absorb this rain water, and with it the carbonic acid, which, in the organism of the plant, is converted into starch, oil, sugar, gum, woody fibre, &c. The large amount of woody fibre found in wheat straw, corn stalks, clover, the grasses, &c., is principally derived from the atmosphere. By using the wheat straw, stalks, &c., as manure, and by plowing in a few green crops of clover, peas, &c., we can supply to the soil a large amount of carbonic acid, at an exceedingly cheap rate. Possessing such an easy means of supplying his soil with all the carbonaceous matter it requires, the farmer need not, and, guided by experience, does not buy manures with any reference to the carbonic acid they can supply to plants.

Oil, sugar, starch, gum, &c., furnish to plants the same fertilizing elements as the woody fibre of straw, clover, &c., and we do not know that they are any more valuable, except perhaps that they decompose more rapidly and furnish more carbonic acid in a given time. Many eminent writers, especially among the ancients, attribute great fertilizing value to oil; but this is not so much to be wondered at, seeing that they called night-soil an oily manure. A few years since oil was highly recommended as a manure for turnips in England, and many experiments were made with it. Some of them, which gave favorable results, were published, and for a time oil was recommended as a substitute for bones. Farther trial, however, proved it to be of little value, and it soon fell into disuse.

One of our best agricultural writers appears to entertain a different opinion from the above, for he has recently pronounced oil "*one of the most powerful fertilizers yet discovered;*" and says one of the best corn crops he ever saw in Connecticut was manured with the "refuse of whale ships." The refuse matter most probably contained much nitrogenous matter, and, therefore, it is by no means certain that the benefit derived was due to the oil. Lawes has shown that turnips require more carbonaceous manure than any other farm crop, and yet in his extensive turnip experiments, oil did little or no good. M. Kuhlman, speaking of his experiments with various manures on grass, says, "rapeseed oil, in 1845 as in 1844, *produced no effect.*"

The same writer advocates a more extensive use of fish as a manure on the sea cost; and in this we most fully concur. But, as the subject of manufacturing a portable manure from fish is now receiving much attention, he will excuse us for referring to what we deem a mistake in the following paragraph:

> As a matter of fact, these fish contain all the valuable fertilizing materials, of the best Peruvian guano. That manure is simply the flesh and bones of fish digested in the stomachs of sea birds, and dried in a rainless climate. The only advantage which Peruvian guano has over the fish, is in the fineness of its particles, and in its dryness. If we had a cheap process of depriving the fish of its water, without evaporating its gases, we should have a manure at home as valuable as that of the Chincha Islands.

Peruvian guano, according to this, is simply dry fish in a finely divided condition. This is true to a certain extent only. Peruvian guano may be considered as fish dried and finely pulverized, *with the oil and other carbonaceous matter burnt out of them.* Fish are composed of say three substances, bones, nitrogenous matter, and oil. When eaten by animals the oil is burnt in the lungs, and expelled in the form of carbonic acid gas and water; the nitrogenous, or *fleshy* matter, composed of the elements of oil chemically combined with nitrogen, is decomposed in the body of the animal, a portion of the oily or carbonaceous elements being used as fuel, and given off as gases through the lungs and pores of the skin, while the nitrogen enters into new combinations with the other portion, and is expelled from the body, together with the phosphates or bones, in the excrements. Guano, therefore, is not simply dry fish, but the nitrogenous matter and phosphates of fish.

This separation of the carbonaceous matter and its expulsion from the body as carbonic gas, takes place in the consumption of all food. Nature intended that vegetables should be used for the support of animal life, and the requirements of vegetable growth are such, that the portion of plants which is *unavoidably* dissipated in the air, when fed to animals, is not needed in greater proportion than the atmosphere and the excrements of animals can supply.

Fish are not valued by farmers as highly as theory would indicate; and we have sometimes queried whether this was not owing to the large quantity of oil which they contain. Certainly the decomposition of fish in the soil would furnish the plants with a greater proportion of carbonic acid as compared with ammonia, than nature intended. And it is in our view highly probable that if some method, analogous to the processes of nutrition, could be discovered, whereby the oil might be separated from the fish, and the nitrogenous matter and phosphates be left in a finely divided condition, such a manure would prove more valuable than the entire fish. A manure, nearly equal to Peruvian guano, is manufactured in France by boiling fish, pressing out the oil, and drying and grinding the residuum. It contains 14½ per cent of ammonia, and 22 per cent of phosphate of lime. It is sold at $34 per ton, and is unquestionably a cheaper manure at that price, than even the *best* Peruvian guano at $50 per ton. It will not do, however, to assert, as some do, that it is quite equal to it, since, for reasons which will at once present themselves to the minds or our readers, it can never be made to contain as much ammonia in a given weight. We understand a company is about establishing a manufactory in this country, and we wish them abundant success, and can see no reason to prevent it.

We shall speak of the manufacture of fish manure in a future number. In the meantime we shall be glad if our readers will furnish us with any information they may possess on the subject. Will not some of our correspondents on the sea coast give us their experience in the use of fish as a manure?

Excelsior Agricultural Works,

Warehouse and Seed Store,

No. 369 and 371 Broadway. Albany, N. Y.

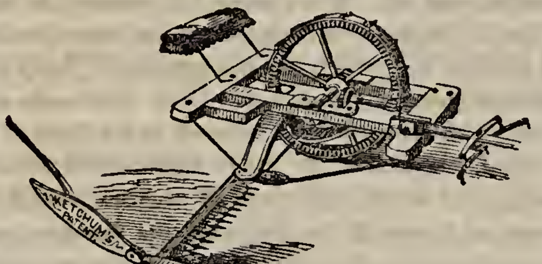
THE subscriber is prepared to furnish to order a full assortment of Farm Implements and Machines, adapted to all sections of the country both north and south, among which may be found,

The Excelsior Changeable R. R. Horse Power.
" " Threshing Machines with Separators
" " Cider Mill, Krauser's Patent.

Mowing and Reaping Machines, Grist Mills, Corn Shellers and Clover Hullers; Circular and Cross-cut saw mills adapted to the Horse Power, for cutting fire-wood, fence stuff &c.

The list of Field and Garden Seeds is complete—embracing most of the Premium Grains on exhibition at the recent winter Show of the New-York State Agricultural So. Among them is the Magnum-bonum Wheat, which is highly spoken of and apparently of great merit. Also a general assortment of Fertilizers.

RICH'D. H. PEASE,
Feb 22—w&mtf. Successor to Emery & Co.



KETCHUM'S MOWER.

THE subscribers would inform their patrons and the public, that they are the sole authorized agents in this City for the sale of the above machine. They offer them on the most favorable terms, and with renewed assurance of its utility. With the recent improvements in its manufacture, it is without doubt the best, if not the only well established Mower now before the public.

For sale at the Albany Ag. Works on Hamilton, Liberty and Union Sts , Albany. EMERY BROTHERS.

North River Agricultural Warehouse and Seed Store.

GRIFFING & BRO., No. 60 Cortland St., New-York.

PLOWS, Harrows, Vegetable Cutters, Root and Bush Pullers, Ox Yokes and Bows, Reaping and Mowing Machines, Corn Planters, Picks, Hoes, Shovels, Spades, Seed Sowers, Corn Mills, Water Rams, Suction, Force and Endless Chain Pumps, Churns, Horticultural Tools, Hay, Cotton and Cheese Presses, Horse and hand hay Rakes, Garden and Fire Engines, Grind stones, Vegetable Boilers, Field and Garden Rollers, Bull Rings, Cattle Ties, Hay-knives, Cultivators, &c.
Feb. 15—w&m2m

Fertilizers.

PERUVIAN GUANO, with importer's brand on each bag —price $48 per ton of 2000 lbs. In less quantity, 2½ cents per lb.

Improved Superphosphate of Lime of the best quality, No. 1—$45 per ton of 2000 lbs.

Bone Dust—warranted pure, at $2, $2.25 and $2.50 per barrel.

Ground Land Plaster.
Pulverised Charcoal.
Poudrette. For sale by A. LONGETT.
No. 34 Cliff Street, one door from Fulton.
Feb. 22—w4tm2t. New-York.

To Agriculturists, Manufacturers, &c.

DRAWINGS and Engravings on wood, of animate and inanimate objects, executed at fair prices and in the best style, by J. B. SEYMOUR,
Feb. 22—w&m3m 57 Broadway, Utica, N. Y.
N. B. Portraits of animals true to nature.

POLAND OATS FOR ALL.

HAVING grown a large crop of Poland or Dutch Oats, I am prepared to supply all that want, at one dollar per bushel of 40 lbs. each, including new bags, and delivered free at the N. Y. C. R. R. J. A. CLARK,
Feb. 1—w&m1t.* Marion, Wayne Co., N. Y.

OSIER WILLOWS, &C.

THE subscriber will furnish cuttings of the SALIX VIMINALIS, the best OSIER WILLOW, at $3 per 1,000. They can be sent during the winter and early spring to all parts of the continent.

Orders addressed to the subscriber, care of C. P. Williams, Albany, N. Y., will meet with prompt attention.

Also all varieties of Fruit Trees, Foreign and Native Grapes, &c. Catalogues sent on application.

S. P. HOUGH,
Feb. 8—w8tm2t Hillside Nurseries, Albany, N. Y.

COLDENHAM NURSERY,

Seven miles West of Newburgh, Orange Co., N. Y.

THE Subscriber continues to offer as heretofore, a large and well selected stock of FRUIT TREES, among which is the celebrated *Great Bigarreau Cherry*, worked from the original tree 30,000 Apple trees, from 5 to 10 feet high and very thrifty, from $15 to $17 per Hundred.

All orders punctually attended to, and trees packed in moss with care, and forwarded from Newburgh as required.

LINDLEY M. FERRIS,
Feb. 1—w4t—m1t. Coldenham, Orange Co., N. Y.

Evergreen and Deciduous Trees.

THE subscriber is prepared to furnish to order, American Arbor Vitæ, American Larch, or Hackmatack, Silver Fir, Red and Black Spruce, American Hemlock and White Pine.

Also, Elm, Maple, Birch, Beech, Ash, and High Cranberries, at very low prices—6 inches to 6 feet high—faithfully taken up and packed, so as to bear rough handling, and go to any of the Western and Southern States—from Boston, by railroad and boats. For terms, &c., address, post-paid,
March 1—m2t WM. MANN, Bangor, Me.

MANURES.

PERUVIAN Guano, Bone-dust, Superphosphate of Lime, Poudrette, Plaster, Charcoal, Oil of Vitriol, &c , for sale by GRIFFING & BRO ,
North River Agricultural Ware House,
Feb. 15—w&m2m No. 60 Cortland St. New-York.

"GET THE BEST."

Webster's Quarto Dictionary.

WHAT more essential to every family, counting room student, and indeed every one who would know the right use of language—the meaning, orthography, and pronunciation of words—than a good English DICTIONARY? of daily necessity and permanent value.

WEBSTER'S UNABRIDGED

Is now the recognized Standard, "constantly cited and relied on in our Courts of Justice, in our legislative bodies, and in public discussions, as entirely conclusive," says Hon. JOHN C. SPENCER.

Can I make a better investment?

Published by G. & C. MERRIAM, Springfield, Mass. Sold by all Booksellers. Feb. 22—w1tm1t*

Excelsior Horse Power

AND THRESHING MACHINE.

THIS Portable Lever Four Horse Power is an improvement on Warren's Patent, (which we own,) and by an experience of more than three years, it proves to be the best and cheapest yet known. None have ever failed to give entire satisfaction in all respects. It is simple in construction, and easily understood by any operator. It may be used with one to four horses. We therefore offer it to the public as a most desirable machine for various purposes.

The Thresher is a superior Spike Machine suited for the Power. With these machines 200 bushels or more of dry Wheat are threshed in a day.

Weight of Power about 550 lbs.—Weight of Main Driving Wheel 300 lbs.—or altogether about 900 lbs. Weight of Thresher 200 lbs.

Price of Power and Pulley Box, &c., $85.

Cost of Patent Riveted Stretch Leather Band, 3¼ inch wide, 40 feet long, $7.50.

Price of Threshers, No. 1 and 2, $40 and $45.

Orders will be duly attended to.

☞ Terms cash on delivery in this city.

PLANT BROTHERS.
Gen'l Com. Merch'ts,
Feb. 22—w&m1t. 75 Pine street, New-York.

Choice Field and Garden Seeds,

AT the North River Agricultural Warehouse.

GRIFFING & BRO.,
Feb. 15—w&m2m No. 60 Cortland St., New-York.

A PARTNER IN PRINTING.

A FOURTH or a third part of a well established Agricultural Newspaper and Job Printing Office, will be sold on reasonable terms to a practical printer, competent to manage the mechanical and business department of the concern. Apply for information at this office. Feb. 8—w3tm1t

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FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPFR & Co., 41 Water St., New-York; Caleb Gasper, Esq.. Marcellus, Onondaga Co., Geo. Young, Esq., Milo Center, Elias Bently, Esq., Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N. Y., Judge Ellsworth, Pen Yan. March 1—mtf—

FOWLERS AND WELLS, No. 308 Broadway, New-York, publish the following valuable Scientific and Popular Family Journals:

LIFE ILLUSTRATED:

A FIRST-CLASS WEEKLY NEWSPAPER,

devoted to News, Literature, Science, and the Arts; to ENTERTAINMENT, IMPROVEMENT and PROGRESS. One of the BEST FAMILY NEWSPAPERS IN THE WORLD. TWO DOLLARS a year.

The Scientific American says: "It is of large size and faultless typography. Almost every branch of human knowledge is treated by able writers." The Rhode Island Reformer says: "We pronounce it the most beautiful Weekly in the Union."

THE WATER-CURE JOURNAL:

Devoted to Hydropathy, its Philosophy and Practice; to Physiology and Anatomy, with numerous Illustrations; and those laws which govern Life and Health. $1 a year.

The most popular Health Journal in the world. [Eve. Post.

THE PHRENOLOGICAL JOURNAL:

Devoted to all those Progressive measures for the elevation and Improvement of Mankind. $1 a year.

"Devoted to the highest happiness and interest of man, written in a clear and lively style, afforded at the 'low price' of one dollar a year, it must succeed in running up its present large circulation to a much higher figure." [N. Y. Tribune.

FOR THREE DOLLARS, in advance, a copy of each of these three Journals will be sent one year. Address, prepaid,

FOWLERS AND WELLS,
Feb. 8—w4tm2t No 308 Broadway, New-York.

CHOICE POULTRY FOR SALE

BRAHMA Pootra or Chittagong, from $3 to $5 per pair. Imperial Chinese, $3.00 per Pair.

Also cross of the Brahma Pootra and Imperial Chinese, $3.00 per Pair.

The stock is from that of David L. Barnard, Clintondale, Ulster Co., N. Y , and warranted all pure.

Fowls to be sent a distance, will be carefully cooped in good health and condition, and forwarded by Express or Rail Road from Newburgh as ordered.

LINDLEY M. FERRIS,
Feb. 1—w2tm1t. Coldenham. Orange Co., N. Y.

THOMAS GOULD,

BREEDER of Durham and Devon Cattle, Leicester Sheep, Suffolk Swine, Madagascar or Lop-eared Rabbits, English Ferrets, Guinea Pigs, Choice and Fancy Poultry.

Jan. 18—w&mtf Aurora, Cayuga Co., N. Y.

PURE BRED ANIMALS

AT PRIVATE SALE.

Mount Fordham, Westchester Co., 11 miles from City Hall, New-York, by Harlem Railroad.

HAVING completed the sale of my domestic animals, as advertised in Catalogue of 1854, excepting Short Horn Bull BALCO (9918), and at prices highly remunerative, for which patronage I feel grateful, not only to the public of almost every State in our Union, but to the Canadas, Cuba, and the Sandwich Islands, *I will issue about the 1st of March, a Catalogue for* 1855, consisting of Short Horned Bulls and Bull Calves, (some of which belong to my friend and part associate, Mr. N. J. BECAR,) North Devon Bulls and Bull Calves, Southdown Rams, Suffolk, Berkshire and Essex Swine, now ready for delivery, of almost all ages, and of both sexes. This Catalogue will be illustrated with portraits of my Prize Animals. Most of the original animals of my breeding establishment, were selected by me from England in person, and strictly in reference to qualities, in my judgment, best adapted for the use of this country.

Feb. 1—w&mtf L. G. MORRIS.

IMPROVED SHORT-HORNS.

DURHAM Bull and Heifer Calves, descended from the herds of Mr. Bates and his nephew Mr. Bell, for sale.

HERMAN WENDELL, M. D.
Nov. 23—wtf Albany.

PURE BLOOD DEVONS.

SANCHO, 2 years old last spring—awarded premium at State fair in 1853.
Stately, 10 years old—Beautiful figure.
Sancho the 2d, 8 months old.
Also 4 Pure Blooded French Merino Ewes.

The Devons are from Mr. R. H. Van Rensselaer's of Morris, Otsego Co., N. Y. The French Merinoes from A. L. Bingham's, Vt The best of references can be given for the above—also their proper Pedigree.

PELEG WEEDEN.
Jan. 4—wtf Preston Hollow, Albany Co., N. Y.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

ENGLISH CATTLE,

Imported on commission by Messrs. THOS. BETTS BROS., Bishop's Stratford, Herts, England — 81 Maiden Lane, New-York City.

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
Short-Horned Cattle,
Devons, Herefords, Ayrshires.
Alderney Cows from Islands of Alderney and Guernsey.
Pure bred Southdown Sheep,
Hampshire Sheep,
Cotswold. Leicester do
Suffolk Pigs.
Essex. Berkshire do
Merino Sheep from Spain,
Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane.
Jan. 4—1am—m1y. New York City.

Notes for the Month.

As an inducement to agents to exert themselves to obtain subscriptions, aside from the consciousness of the benefit they will confer upon their neighbors and the community by bringing such works into more general circulation, we offer the

Following Premiums.

1. For the largest amount of cash paid in before the 10th of April next, whether for *The Cultivator* alone, or for the *Country Gentleman*, or for the *Illustrated Annual Register*, or for all three together, according to their respective terms—FIFTY DOLLARS.

2. To the one sending us the next largest amount, FORTY-FIVE DOLLARS.

3. For the next largest,.... FORTY DOLLARS.
4. For the next largest,.... THIRTY-FIVE DOLL'S.
5. For the next largest,.... THIRTY DOLLARS.
6. For the next largest,.... TWENTY-FIVE DOLL'S.
7. For the next largest,.... TWENTY DOLLARS.
8 For the next largest,.... FIFTEEN DOLLARS.
9. For the next largest,.... TEN DOLLARS
10. For the next largest,.... FIVE DOLLARS.

◆

Value of Guano.—A correspondent (X L) from a *single* experiment, has come to the conclusion that guano "will soon be numbered among the humbugs of the past," and that "the venders of the article have lived long enough on gulling the people." We merely mention this to show the great impropriety of drawing such hasty conclusions from single experiments, for notwithstanding the enormous prices paid for guano ($50 to $60 per ton) its use is yearly increasing in the country, and especially in the older portions and on the more worn-out soils of the Union. It is true, it requires more care and skill in application than that excellent and universal fertilizer, yard manure, and consequently is more easily affected in its results than the latter; but we have numerous instances of its great power in promoting vegetable growth, which it could never do if it were only a "humbug." We cannot say why our correspondent failed, but it is evident there were some sufficient causes, which he has not mentioned, or may not know. Adulteration of the article, so common in England, we think more rare here, partly in consequence of intelligent farmers being always readers of agricultural journals, which are, with a very few exceptions, great checks on imposition; and partly from the fact that it is bought more directly from responsible dealers. Its high price alone, is a great drawback on its general applicability, and every good farmer will buy it only when he fails to secure enough of the elements of fertility through the best managed yard manure factory.

Improved Stock.—We have the pleasure of giving to our readers this week, a very fair portrait of Mr. Morris' beautiful Short Horn cow "Bloom," and would call attention to Mr. M's. advertisement, from which it will be seen that, having sold, with one exception, the entire list of animals included in his last year's Catalogue, he is about to issue a new list, embracing such animals as he will have for sale during the present year.

Corn Bug—Mr. T. Lowry of Rockville, Indiana, writes:—"The past has been an exceedingly hard season on farmers in this section of country. The spring floods and summer drouth, left us with but little corn. Our hay and oat crops pretty good. Wheat good in places. My own wheat was entirely destroyed by some kind of fly. In Clay county, some fields of corn were destroyed by a fly or bug. People there thought that it was bred in the wheat fields, and then moved into the corn. It would fasten on the stalk and suck out the sap and kill it. It was described as being a little larger than the gnat, dark color, with a white spot on the back—wings like a bug—when crushed it emitted an odor resembling a bed-bug."

Large Heifer.—I send you the live and dressed weights of a two-year old heifer, raised and fattened by Nathaniel Barns of this town. She was a grade Durham—calved April 25, 1852—slaughtered Feb. 1, 1855. When last weighed alive (Jan. 10,) her weight was 1240 lbs. Her dressed weight was

Quarters,	770	lbs.
Rough tallow,	70	"
Hide,	70	"
Total,	910	"

She was never fed any grain until Nov. 1st, 1854. For a heifer of the age, I think her weight unusual. Wm. D. Barns. *Newburgh, N. Y.*, Feb. 3, 1855.

Ho! for Madagascar.—Listen, ye who boast of the doings of nine-pounds hens and twelve pounds roosters! The shell of an egg, laid by one of the gigantic birds of Madagascar, has been received in Paris, the shell of which *holds nearly ten quarts!* This is a fact; and though the rage for big chickens is decidedly on the wane, we would suggest that some enterprising breeder send to the great African Island and import some of these *hens*, or at least a few of the eggs! They would doubtless take all the premiums at our Poultry Shows; at least so long as size rather than form is the test of excellence.

Ag. Progress in Iowa.—A letter from a friend in Iowa says—"When I came to this state, about four years ago, there was not an Ag. Society in it. We now have a State, and over thirty County Societies. The legislature this winter has donated to the State Society, $1000 per annum. This state offers the highest inducements for agricultural pursuits, and a vast extent of the finest part of it is still open, inviting emigration."

Transactions *of the New-York State Agricultural Society for* 1853.—This volume, for which we are indebted to the attention of B. P. Johnson, secretary of the Society, is one of the best that has yet appeared. The matter is of a more select and permanent nature than a large portion to be found in some of its predecessors. Among the more able and valuable portions of this collection, we may enumerate the address of Wm. C. Rives, of Virginia, before the State Fair at Saratoga; the lecture of Prof. Wilson, on the culture of Flax, which is in itself a very full treatise on the treatment and uses of this crop; the report of J. Stanton Gould on the Machinery exhibited at Saratoga: that of Prof. Cook on the composition, value, and manufacture of salt in different localities; the plan and description of the extensive Farm Buildings of Lewis F. Allen, of Black Rock; the reports of the minute, varied, extensive and accurate experiments of several cultivators on the Potato; the culture and uses of Indian corn, including many excellent modes for cooking it, by C. N. Bement; and the full and extensive dairy reports from Herkimer county, contained among the accounts of the county Societies. There are many other smaller papers of much value. In a succeeding number, we intend giving some account of the contents of the more valuable contributions contained in this volume.

Poultry.—A subscriber at Aurora, Cayuga Co. says—"Dry as the season has been, our farmers managed to raise some poultry last season. One firm in this town, have shipped to New-York at least ten tons of poultry, and there are several others engaged in the business."

More Good Hogs.—A correspondent writes that Elihu Gifford, Esq., of Easton, Wash. Co. N Y., has recently killed, and marketed, 17 fat hogs, which together weighed 7738 pounds, averaging 455 pounds each. He sold them for $580,35. They were small boned hogs, about 20 months old, and were fattened on cooked food, which, for the last 6 weeks of the feeding, was meal made of 2 parts corn on the cob and 1 part oats ground together; but earlier in the fall he cooked some kind of meal with pumpkins, &c. B.

A Good Pig.—A correspondent, Mr. R. S. Stoddard, informs us that Capt. Charles Crandall, of Gales Ferry, killed a pig the 21st of Dec., nine months and twenty days old, which weighed 443 lbs.

Buckwheat in Oregon.—A subscriber in Columbia county, Oregon, informs us that he harvested the past season, sixty bushels of buckwheat, the product of half a bushel seed sown on an acre.

Pruning Currants.—The treatment for the production of the largest and finest flavored currants, is by one M. D., given for them to be raised in small trees, close pruning, high manuring, &c. Another, recommends their being kept in bushes, old wood pruned out, &c.

Now, can you from *experiment*, say which method, with an equal amount of labor, would produce the greatest quantity of fruit? W. *Galesburg, Ill.*

Single "experiments" decide but little, and hence the diversity of opinions on the subject, according to the accidental success one way or the other. In our hot climate, single stems a foot high, have not resulted so well as very short ones. These admit of clean cultivation better than many stems with old wood kept well pruned back; the latter we have found rather the most productive.

Agricultural Societies.

Vermont State Ag. Society.—The annual meeting of this society was held at Middlebury, on the 11th inst., when the following list of officers were elected for the ensuing year:

President—Fred'k Holbrook, of Brattleboro'.
Vice Presidents—Edwin Hammond, Henry S. Morse, Henry Keyes, Solomon W. Jewett.
Cor. Secretary—J. A. Beckwith, Middlebury.
Rec. Secretary—Charles Cummings, "
Treasurer—Edward Seymour, Vergennes.
Auditor—Fred. E. Woodbridge.
Additional Directors—George F. Hodges, E. B. Chase, J W. Vail, John Gregory, A. L. Bingham, David Hill, John Howe, Jr., J. W. Colburn, B. B. Newton.

Connecticut State Agricultural Society.—This young society is in a highly prosperous condition. The annual meeting was held at Hartford, Jan. 3rd Hartford is fixed upon as the place for holding the next exhibition. The Treasurer's report shows a flourishing pecuniary condition. The receipts for the past year have been $12,743 20; the expenditures, $7 504 77. The following officers were elected for the ensuing year:

President.—Samuel H. Huntington, of Hartford.
Vice Presidents.—Charles H. Pond, of Milford, and Nathaniel B. Smith, of Woodbury.
Cor. Sec'y.—Henry A. Dyer, of Brooklyn.
Rec Sec'y.—John A. Porter, of New-Haven
Treasurer.—John A. Porter of New-Haven.

COUNTY DIRECTORS.

Hartford—Frederick H. North. of Berlin.
New-Haven—Elias B. Bishop. of North-Haven.
Fairfield—Eliakim Hough, of East Bridgeport.
Litchfield—Theodore J. Gold, of Cornwall.
New-London—Erastus Wiillams, of Norwich.
Middlesex—Brainerd Montague, of Middletown.
Windham—Henry Hammond, of Killingly.
Tolland—R. B. Chamberlain, of Coventry.

Pennsylvania State Ag. Society.—The following persons were elected officers of the State Society for the ensuing year, at the annual meeting held at Harrisburg last week:—

President—James Gowen, Germantown.
Vice Presidents—Isaac B Baxter, A. T. Newbold, William C. Rudman, Algernon S. Roberts, Thomas P. Knox, Abra R M'Ilvain, William Stavely, Henry A Roberson. John Strohm, John P. Rutherford, Amos Knapp, George W Woodward, Agustus Lukenbaugh, William Jessup, H. N. M'Allister, Jacob S. Haldeman, William Heister. John S. Isett, John M'Farland, John H. Ewing, John Murdock, William Martin, Sr., William Waugh, William Bigler, James Miles.
Cor. Secretary—A. L. Elwyn.
Chemist and Geologist.—S. S. Haldeman.
Librarian.—David Mumma.

The following gentlemen were elected additional members of the Executive Committee: Frederick Watts, John S. Evans, A. O. Heister, Isaac G. M'Kinley, Simon Cameron.

New-Jersey State Ag. Society.—A large meeting of the friends of Agricultural improvement met in Trenton on the 24th ult., when, after some discussion, a State Ag. Society was formed and a constitution adopted. A committee was appointed to nominate officers of the Association, and their report was adopted as follows:

President—Charles S. Olden, of Mercer.
Vice Presidents—John R. Sickler of Gloucester; Lewis Perrine, of Mercer; James Campbell, Somerset; Aaron Robertson, Morris; Charles M. Saxton, Essex—(one from each Congressional District.)
Cor. Sec'y—J. H. Frazee, of Somerset.
Rec. Sec'y—F. P. Autin, of Mercer.
Treasurer—J. S. Chambers, of Mercer.

Herkimer County Ag. Society.—The following are the officers elected by this Society for the present year:

President.—Col. Geo. B. Judd, Frankfort.
Vice President.—Duane Richardson, Schuyler
Sec'y.—Wm. Dygert, Frankfort.
Treasurer.—J. A. Rasbach, Ilion.
Executive Committee.—Daniel Mason, James Folts, Geo. W. Joslin, Frankfort; Hon. Ezra Graves, Herkimer; Samuel H. Kinnee, Litchfield; Amos Gilbert, Winfield; Wm. P. Pruyn, Schuyler; J. D. Ingersoll, German Flatts, and L. F. Hawks, Columbia.

Lewis Co. Ag. Society.—The following officers have been elected by this society for the ensuing year:

President.—Sanford Coe, West Turin.
Vice Presidents.—Wm. C. Miller, Geo. Woolworth, Jas. R Treat, John Benedict, Harrison Blodget, D. A. Stuart, Gilbert E. Woolworth, John M. Paris, David H. Higby, Seymour Green.
Rec. Secretary—Chas. C. Riggs.
Cor Secretary—Chas. D Adams
Treasurer.—M M. Smith.
Executive Committee.—Abm. I. Mereness, Albert Foster, Edmund Baldwin, Lewis Stephens, John D. Lord

Clinton Co. Ag. Society.—At an annual meeting held in Plattsburgh, on the 24th ult., the following officers were elected:—

President—John W. Bailey, Plattsburgh.
Sec'y—John L. Stetson, do.
Treasurer—Zephaniah C. Platt, do.
Vice Presidents—John W. Hubbel, Chazy, Isaac Smith, Plattsburgh; Stephen R. Smith, Peru; Silas M Taylor, Schuyler Falls; A. J. Moses, Champlain; T. G. Whitney, Mooers; O. B. Lapham, Peru; John Nichols, Plattsburgh; Thomas Crook, Beekmantown; Peter Keese, Ausable.

Monroe County Ag. Society.—The officers of this society for the ensuing year are:

President—Stephen Leggett, Henrietta.
Vice Presidents—Selden C. Banning, Ogden, W. Hodges, Brighton.
Treasurer—E. S. Hayward, Brighton.
Cor. Secretary—A. E. Harmon, Wheatland.
Rec. Secretary—E. R. Hallock, Rochester.

Windham (Ct.) Ag. Society.—At the annual meeting of the Windham Co. Ag Society, held on the 20th of Dec. last, the following list of officers were chosen:

President—Col. Calvin D. Williams, Pomfret.
Vice Presidents—Henry A. Dyer, Brooklyn; David Gallup, Plainfield; Ezra L. Dean, Woodstock.
Rec. Sec'y—Jas. B. Whitcomb. Brooklyn.
Cor. Sec'y—Albert Day, Brooklyn.
Treasurer—John Gallup, 2d, Brooklyn.
Auditors—Olney Tanner, William H. Putnam, Amos J. Gallup.

Seymour's Patent Grain Drill.

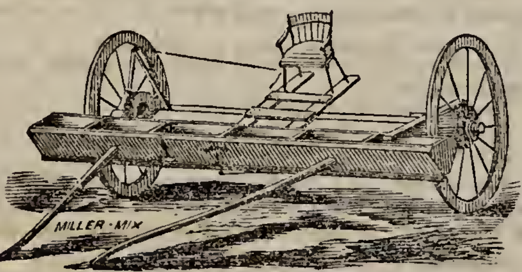
THIS machine is unrivalled by any Drill yet presented to the public. It was thoroughly tested at the great Trial of Implements at Geneva in July 1852, where it was awarded the first prize. It has also received the first prize at several State Fairs The machinery is remarkably simple, permanent and easily kept in repair, and all the parts are so clearly presented to the view of the operator, that he can readily see if any thing is not correct; and the grain falls from the seed box to the tubes, (a space of several inches,) in full view, so that in passing over the field, he may be constantly assured that the seed is deposited as is designed. The usual size is made with nine teeth, eight inches apart; but any other size, and teeth any other distance apart, can be made to order. THIS DRILL WITH NINE TEETH RUNS EASIER THAN SOME DRILLS WITH ONLY SEVEN TEETH. The teeth are all placed in one rank, unless ordered to be pu in two ranks. It is believed by those who have made experiments, and given the subject their careful attention, that the evils caused by lumps, stones, &c., being thrown by the teeth in the hind rank into the furrows made by the teeth in the front rank, are, in most cases, far greater than the advantages gained. This fact has induced the inventor to construct his DOUBLE-RANKED DRILL so that the teeth can all be placed in one rank, at pleasure, thus obviating, in this drill, the objection to all other two-ranked drills. The price of the drill, with teeth in two ranks, is ten dollars higher than those with teeth in but one rank.

A VALUABLE IMPROVEMENT was made in the drill in 1854, which prevents the shrinking and swelling of the wood from affecting the correctness of its operation. This drill is made small enough to be drawn by hand for garden purposes, when ordered. The Garden Drill answers admirably for apple and pear seeds, and all kinds of garden seeds, planting at one operation, four rows at one foot distance—three rows at 1½ feet, or two rows at three feet distance.

The following are the advantages this drill possesses over other Grain Drills, viz: It sows all grain and seeds, from peas and corn, to grass seed, as well as any other drill sows wheat, not failing thus to perform in sowing even beet or carrot seed; and it is difficult to clog it with any of the trash and foul stuff commonly found in grain, such as straw, chaff. stems of tare or other weeds. It will also sow any grain soaked and rolled in lime, plaster, ashes, guano, poudrette, &c., &c It also sows lime, plaster, ashes, and all dry fertilizers which are fine enough to pass through the Machine. It may also be used for planting corn, beans. &c. in drills, for which purpose there is nothing better. Whatever it will sow in drills it will just as readily sow broadcast, by removing the drill tubes, which is very easily done. It is remarkably simple in its construction, and very durable. It is easily understood and kept in order by common laborers, or repaired by common mechanics, such as are at hand in nearly every neighborhood or town.

The price is but little in advance of any other approved grain drill, and quite below that charged for many which are far less adapted to the wants of the farmer or planter than this,—and in view of its utility, simplicity, convenience and durability, it is believed to be by far the cheapest drill in the world.

When ordered, the following extras are added to the drill:—1. A "FEEDER," to prevent clogging in sowing damp plaster and other fertilizers. 2. A "GRASS SEEDER," which is a box and fixings for sowing Grass Seed Broadcast, in front of the drill teeth, while drilling; or it may be used while sowing plaster broadcast from the main box. 3. A set of HORSE HOES to cultivate the wheat in the Spring. The drill teeth are removed and these are put in their place. With these extras added, the Machine is capable of sowing grass seed, hoeing the wheat, (which also hoes in the grass seed) and sowing plaster all at once.



Seymour's Patent Broadcast Sowing Machine.

This Machine is well known in Western New-York, also in many other parts of the United States, and is universally acknowledged to be the best implement in our country for the purpose for which it was intended. It sows correctly all kinds of grain, (and any desired quantity per acre) from peas to grass seed, including wheat, rye, oats, barley, buckwheat, rice, hemp, flax, clover and timothy seed; also plaster, lime, salt, ashes, bone dust, &c., &c. It is capable of dusting every inch of ground on an acre of land, with less than half a bushel of plaster, and thirty or forty bushels of lime may be thus evenly applied to the same amount of land. It sows ten feet wide, or may be made narrower to order.

Mr. P. Seymour—Dear Sir: I have been familiar with the operation of your Broadcast Sower and your Grain Drill, for some years, and justice requires me to say that I think them equal to any machines of the kind, *in all respects*, and *far superior in the most important*, viz: *the manner of discharging the grain, manure, plaster, &c, from the hopper.*

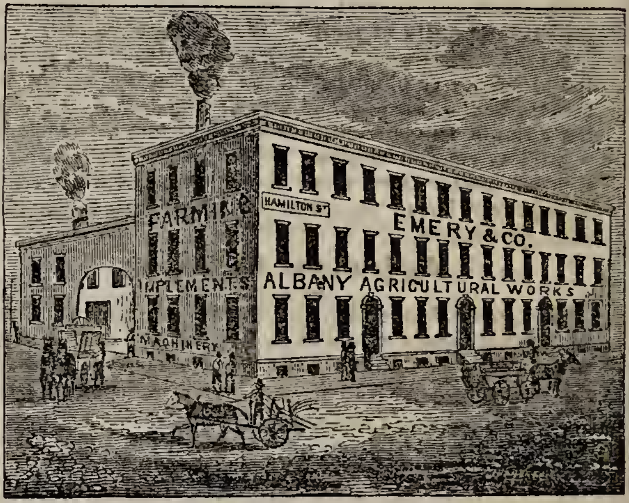
ENOS BOUGHTON.

Those who know Mr Boughton will put the most implicit confidence in his commendation. These machines are in use by many of the first farmers in the States of New-York, Ohio, Indiana, Illinois, Missouri, South Carolina, Virginia, Kentucky, Iowa, Wisconsin, Michigan, Pennsylvania, Maryland, Delaware, New Jersey and Tennessee, and also in Canada, to all whom we refer for their reputation, believing that all who have given them a fair trial will commend them.

☞ Directions for using, accompanying each machine. All communications promptly attended to.

Prices—Drill with 7 teeth $80; 9 teeth $90; 11 teeth $100. Broadcast Sower $55; Garden Drill $40; Extras to the Drill when ordered, Feeder $6; Horse Hoes $2 each; Grass Seeder $15.

C. H. SEYMOUR, Manufacturer.
P. SEYMOUR, Patentee
East Bloomfield, Ontario Co. N. Y., Feb. 22, 1855.



Albany Agricultural Works,

On Hamilton, Liberty and Union Sts., Albany, N.Y.

THE proprietors of the above named establishment, being the sole owners and manufacturers of

Emery's Patent Horse Power,

All arrangements with other parties for their manufacture having expired, have formed a copartnership under the firm name of EMERY BROTHERS, and will continue the manufacture and sale of *AGRICULTURAL IMPLEMENTS AND MACHINERY* as heretofore, at the old stand of Emery & Co. By this arrangement, the united interests and efforts of the Brothers, long known to the public, are secured.

The public may rest assured that the reputation heretofore earned for our manufactures, shall be fully sustained, by using none but the best materials and workmanship; and by a strict attention to business, we hope to merit and enjoy a continuance of the patronage heretofore so liberally bestowed, which we respectfully solicit. Further particulars by mail. Descriptive Catalogues (a beautiful Illustrated pamphlet,) furnished gratis by mail on application.

EMERY BROTHERS
Albany, March, 1, 1855—w&mtf

BLACK HAWK.

THE original VERMONT BLACK HAWK will serve a limited number of mares the coming season at $100 each.

Gentlemen wishing to secure the services of this horse, must send in their letters at once.

Good pasturing at 50 cents per week. All accidents and escapes at the risk of the owner.

DAVID HILL,
March 1, 1855—m5t Bridport, Addison Co., Vt.

Farm Lands for Sale.

The Illinois Central Railroad Company

Is now prepared to sell over Two Millions of Acres of Prairie Farm Lands, in Tracts of Forty Acres or upward, on Long Credit and at Low Rates of Interest!

THEY were granted by the Government, to encourage the building of this Railroad, which runs from the extreme North to the extreme South of the State of Illinois. The road passes, from end to end, through the richest and most fertile Prairies of the State, dotted here and there with magnificent Oak Groves. The recent opening of nearly six hundred miles of the Company's Railroad throws open their lands for cultivation, they being scattered for several miles in width, on each side of the road, throughout its entire length.

The soil is a dark, rich mold, from one to five feet in depth, is gently rolling, and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc.

The economy in cultivating and the productiveness of Illinois lands are well known. Trees are not required to be cut down, stumps grubbed, or stone picked off, as is generally the case in the cultivating of new land in the older States. The first crop of Indian corn, planted on the newly broken sod, usually repays the cost of plowing and sometimes that of fencing. Wheat sown on the newly-turned sod is sure to yield very *large profits*. One man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from $2 to $2.50 per acre. By judicious management, farms may be broken and fenced the first, and under a *high state of cultivation* the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market. The rapid increase and growth of flourishing towns and villages along the line afford a substantial and growing home demand for farm produce.

Bituminous coal is mined at several points along the road and is a cheap and desirable fuel.

Price and Terms of Payment.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for deeds may be made during the year 1855, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will come due at the end of the sixth year from the date of the contract.

Interest will be Charged at only 2 Per Cent Per An.

As a security for the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that from one-tenth to one-fourth of the land purchased shall yearly be brought under cultivation. Large credits at six per cent. per annum, may be negotiated by special application. Twenty per cent from the credit price will be deducted for cash. The Company's construction bonds will be received as cash.

Contracts have been made with responsible parties to keep on hand

Ready-Framed Farm Dwellings,

Which can be set up in a few days. They will be 12 by 20 feet, divided into one Living and three Bedrooms, and will cost complete—set up on ground chosen anywhere along the Road. $150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly, charging for the cheapest class at the rate of 11 cents for every mile transported.

Special arrangements with dealers have been made to supply those purchasing the Company's land with fencing materials. agricultural tools, and an outfit of provisions in any quantity, at the *lowest wholesale prices.*

It is believed that the price, long credit and low rate of interest, charged for these lands, will enable a man, with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the meantime, the rapid settlement of the country will probably have increased their value four or five fold. When required, an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing etc., by contract—or any other information—will be cheerfully given on application, either personally or by letter, post-paid, in English, French, or German. Addressed to CHARLES M. DUPUY, Jr., Land Agent of the Illinois Central R. R. Co., Chicago, Ill.

Feb. 22—w1tm2t. J. N. A. GRISWOLD, President.

DELL & COLLINS,

Waterloo, Seneca Co, N. Y.,

INVITE the attention of Nurserymen, Dealers, Amateurs and Fruit Growers in general, to their stock of

FRUIT AND ORNAMENTAL TREES,

Embracing all the most hardy and valuable kinds for general cultvation. They would especially call the attention of the Fruit-grower, to their large stock of PEAR TREES, which for *good* quality and *low price*, they believe to be unrivalled. Also a general assortment of Fruits, from the Apple to the Strawberry.

A leading feature of their Nursery, is the cultivation of a great variety of NATIVE ORNAMENTAL TREES, both deciduous and evergreen. Without rejecting foreign trees, their main object has been to present as great a variety of the *beautiful trees* of our own country, as the taste of the most refined Amateur could desire: to accomplish which they have made, and are still making extensive Botanical researches. They have now on hand about 30,000 AMERICAN ARBORVITÆ, one and two years transplanted, 6 in to 2 feet high, which will be sold low for cash, at wholesale or retail. Also *Balsam Fir, Spruce*, &c., from 6 in. to 6 feet; and a great variety of native Forest Trees, to which they expect to make great additions next season. Orders are respectfully solicited. Dec. 30—w3t—m3t.

Desirable Nursery Establishment
FOR SALE.

THE undersigned having other business arrangements in view, offer for sale the business and Establishment of the

Highland Nurseries, Syracuse, N. Y.

The Stock is quite extensive, and very good. It comprises every desirable variety of the Standard Fruits, and Hardy Fancy Stock, in every stage of growth, from saleable Trees to a large quantity of Fruit Seeds planted this Fall—with a well established business, and arrangements which may easily be completed for its indefinite extension.

From thirty to seventy-five acres of land, admirably adapted by location and soil for the business, will be sold or rented as may be desired by the purchasers of the Stock, on the most favorable terms.

Few or no Establishments in the State of its age, have a better reputation. or a more rapidly increasing business, and there is no better location than Syracuse, for conducting and extending it.

The *whole* will be sold at a bargain, and if not disposed of sooner, the stock will be sold in parcels on the opening of the Spring Trade.

Further particulars will be given on application to

BARNES, PHELPS & PUTNAM,
Jan. 5—w1tm2t. *Highland Nurseries, Syracuse, N. Y.*

Lawton Blackberry Plants.

C. M. SAXTON, 152 *Fulton St., New York*, Agent for WM. LAWTON, will receive orders for *Plants. The Plants will be put up in boxes* in good shipping order, and will be ready to deliver in March.

As our supply is limited, we shall keep a *Register* of *orders* and they will be sent in the order received.

Price *ten Dollars* per doz. The money must accompany the order. Address

C. M SAXTON,
Dec. 28—w2t—m2t. 152 Fulton-St., New-York

PURE BRRD FOWLS.

THE subscriber has for sale—
Brahma Pootra Fowls.
White Shanghae "
"Palmer" do "
Imperial Chinese "
Hong Kong "
Wild Indian Mountain do—

Bred from selected stock, and warranted pure. Boxed and sent by Express to any part of the Union.

Apply to WILLIAM B. SMYTH,
Dec. 21—w3t—m3t New-Britain, Conn

Osage Orange Seed.

75 BUSHELS prime Osage Orange Seed, for sale by

JOHN F. DAIR & CO.
Feb. 22—3t* Seed Store, Cincinnati, Ohio.

THE SATURDAY EVENING POST.

ESTABLISHED AUGUST 4, 1821.

Weekly Edition between 80,000 and 90,000.

THE long period of over THIRTY-THREE YEARS, during which the SATURDAY EVENING POST has been established, and its present immense circulation, are guarantees to all who may subscribe to it that they will receive a full return for their money. Our arrangements so far for the present year, (1855,) are such as we trust will be thought worthy of the high reputation of the Post. POSITIVE ARRANGEMENTS already have been made for contributions from the gifted pens of

MRS. SOUTHWORTH, GRACE GREENWOOD, MRS. DENISON, MARY IRVING,
ELIZA L. SPROAT, ALICE CAREY, METTA VICTORIA FULLER,
FANNY FERN,

And a NEW CONTRIBUTOR, (whose name by request is withheld.)

We are now (February) publishing a Novelet by GRACE GREENWOOD, entitled

THE MINISTER'S CHOICE.

We purpose following this with an Original Novelet—designed to illustrate, incidentally, the great EVILS OF INTEMPERANCE—entitled

THE FALLS OF THE WYALUSING.

By a new and distinguished Contributor.

We have also made arrangements for TWO SHORT NOVELETS, to be entitled

THE ONEIDA SISTERS,

AND

THE NABOB'S WILL,

By GRACE GREENWOOD, Author of "Greenwood Leaves," "Haps and Mishaps," &c.

Also the following additional contributions:—

NEW SERIES OF SKETCHES,

By FANNY FERN, Author of "Fern Leaves," &c.

MARK, THE SEXTON,

A Novelet bearing upon the subject of "SPIRITUALISM," by MRS. DENISON, Author of "The Stepmother," "Home Pictures," &c.

NANCY SELWYN, or the Cloud with a Silver Lining.

A Novelet, by MARY IRVING.

And last, but by no means least—from the fascinating and powerful pen of the Post's own exclusive contributor—

VIVIA,

A STORY OF LIFE'S MYSTERY.

By MRS. EMMA D. E. N. SOUTHWORTH, Author of "Miriam," "The Lost Heiress," &c. &c. &c.

In addition to the above proud array of contributions, we shall endeavor to keep up our usual variety of ORIGINAL SKETCHES AND LETTERS, PICTURES OF LIFE in our own and Foreign Lands, CHOICE SELECTIONS from all sources, AGRICULTURAL ARTICLES, GENERAL NEWS, HUMOROUS ANECDOTES, View of the PRODUCE AND STOCK MARKETS, BANK NOTE LIST, EDITORIALS, &c. &c.,—our object being to give a Complete Record, as far as our limits will admit, of the Great World.

ENGRAVINGS.—In the way of Engravings, we generally present at least two weekly—one of an instructive, and the other of a humorous character.

The Postage on the Post to any part of the United States, paid quarterly or yearly in advance, at the office where it is received, is only 26 cents a year.

TERMS.

The terms of the POST are Two Dollars a year, payable in advance. For Five Dollars, *in advance*, one copy is sent three years. We continue the following low terms for clubs, to be sent, in the city, to one address, and, in the country, to one Post Office:

4	COPIES,		$5.00	PER ANNUM.
8	"	(And one to the getter up of the Club,)	10.00	"
13	"	(And one to the getter up of the Club,)	15.00	"
20	"	(And one to the getter up of the Club,)	20.00	"

☞ The money must always be sent in advance. Address, *always post-paid*,

DEACON & PETERSON,
No. 66 SOUTH THIRD STREET, PHILADELPHIA.

☞ N. B.—*Any person desirous of receiving a copy of the POST as a sample, can be accommodated by notifying the publishers by letter*, (post-paid.)

☞ TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (the notices of new contributions and our terms,) for their *editorial* columns, shall be *entitled* to an exchange, by sending us a marked copy of the paper containing the advertisement or notice. Feb. 15—w1tm1t

Albany Agricultural Works,

Warehouse and Seed Store, 369 *and* 371 *Broadway, Albany.*

THE subscriber having purchased the stock in trade of the above works, is now prepared to furnish to order a full assortment of Farm Implements and Machines adapted to all sections of the country, both north and south, among which may be found—

"*Emery's Patent Changeable Railroad Horse Powers.*"
Overshot Threshing Machines with Separators.
Mowing and Reaping Machines.
Grist-mills, Corn-shellers and Clover-hullers.

Circular and Cross-cut Saw-mills, adapted to the horse power, for cutting fire wood and fence stuff, with a full and complete assortment of FIELD AND GARDEN SEEDS and FERTILIZERS. For further particulars, full Catalogue will be sent on application by mail.

RICH'D H. PEASE,
March 30—w&mtf Successor to Emery & Co

Ditch Diggers, Tile and Brick Machines,

Manufactured by PRATT & BROS., Canandaigua, N. Y

THE Ditch Digger and Tile Machine were constructed to cheapen and extend Drainage. Ditches must be made cheaper and faster, and Tile must be made easily, simply and extensively. The Farmer feels it and agriculture demands it: and we beg leave to say to all interested, that these machines will accomplish the object.

We warrant our Ditch Digger to be capable of cutting from fifty to 150 rods of Ditch in a day, by the use of one man and two horses, not less than 2½ feet deep; and that this implement is made in a thorough and workmanlike manner.

We warrant our Tile Machine to be capable of making from tempered clay, 10 to 15,000 Tile or Brick in a day, by the use of two horses—grinding the mud and making the Tile or Brick at the same time and by the same operation—using steam or water power with equal facility.

This Tile Machine enables Brick makers to make Tile and Tile makers to make Brick, changing from one to the other in less than 5 minutes, and the cost of the Machine is no more than those in ordinary use, it being the simplest arrangement known. The quality of Brick made, is but a little inferior to pressed Brick.

Farmers, if you want Tile made cheap and near you, see yourselves that it is done. See to it that *some one* gets a machine and makes them. Farmers, if you want Ditches made quickly and cheaply, buy a Ditch Digger, or find a man that will do it. Farmers and others, if you want to see these machines at work, come when frost has disappeared and see them. We shall be ready, and take pleasure in showing them to you.

Brick makers, do you want to change your business for the better? Then make Tile and better Brick, and you will be the gainer, and agriculture accommodated. We have a large number of Tile Dies from which to select.

Dealers in Agricultural Implements. we will supply you on favorable terms. Persons wanting exclusive Patent privileges, we will negociate with you. All, wanting any further information, will please address PRATT & BROS.
Dec. 21—w&mtf. Canandaigua, N. Y

FARMERS AND GARDENERS

WHO cannot get manure enough, will find a cheap and powerful substitute in the IMPROVED POUDRETTE made by the subscribers. The small quantity used, the ease with which it is applied, and the powerful stimulus it gives to vegetation, render it the cheapest and best manure in the world. It causes plants to come up quicker, to grow faster, to yield heavier and ripen earlier than any other manure in the world, and unlike other fertilizers, it can be brought in direct contact with the plant. Three dollars worth is sufficient to manure an acre of corn. Price, delivered free of cartage or package on board of vessel or railroad in New-York city, $1.50 per barrel, for any quantity over six barrels; 1 barrel, $2; 2 barrels, $3 50; 3 barrels, $5.00; 5 barrels, $8.00. A pamphlet with information and directions will be sent gratis and post-paid, to any one applying for the same.

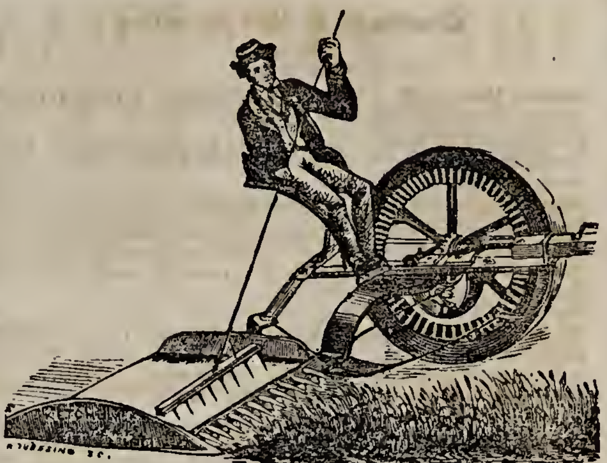
Address, the LODI MANUFACTURING COMPANY,
74 Cortlandt Street, New-York.

WATERTOWN, Mass., Oct. 19, 1854.

Lodi Manufacturing Company:

Gentlemen—at the request of John P. Cushing, Esq. of this place. I have, for the last five years, purchased from you 200 barrels of POUDRETTE per annum, which he has used upon his extensive and celebrated garden in this town. He gives it altogether the preference over every artificial manure, (Guano not excepted,) speaks of it in the highest terms as a manure for the kitchen garden, especially for potatoes.

I am, gentlemen, very respectfully,
Your obedient servant,
Jan. 18—w1am4t—m4t BENJAMIN DANA.



KETCHUM'S MOWER,

WITH REAPER ATTACHMENT,

Manufactured by HOWARD & Co., Buffalo, N. Y.

KETCHUM'S celebrated Mowing Machine, has been improved by the addition of a *Reaper Attachment*, and we now offer it as a Mower, or as a Mower and Reaper combined, with full confidence that it is the most perfect and successful Machine now in use. The change from a Mower to a Reaper (which means has been patented,) is effected by simply enlarging the main-wheel, by circular sections, bolted to the rim of the wheel. Some of the advantages obtained by this arrangement are—*First*—Raising the cutters sufficiently high for cutting grain. *Second*—Lessening the motion of the knives, *without any change of gearing*, which is very desirable in cutting grain, as much less motion is required. *Third*—Reducing the draft of the Machine at least *one-third. Fourth*—Raising the cogs of the driving-wheel, thereby preventing them being filled with dirt, as they otherwise would be, on stubble land. *Fifth*—Attaining the above named objects *without the least change* of any part of the Mower. We shall build for the harvest of 1855 the Combined Machines, with *wrought iron frames and finger bars.* Those manufactured expressly for mowing will *all* have *wrought iron finger bars*, but a portion of them with wood frames. Each Machine will have a good spring seat, and every part made in the most substantial manner, and warranted durable, with proper care. We have reduced the weight of the Mower about one hundred and fifty pounds, which we have found desirable, and have no doubt will improve them, by *lessening their draft.* We shall take the utmost pains to have our knives made of the best of steel, and *well tempered.*

We offer our Machines, and warrant them capable of cutting and spreading from ten to fifteen acres of *any kind of grass* per day; also warrant them capable of cutting the same amount of grain per day.

RUGGLES, NOURSE, MASON & Co., of Worcester, Mass., are manufacturing, and have the *exclusive* right to sell in the N. E. States. They are also manufacturing a *one horse* Mower, which they have a right to sell in any of the United States except the Western.

SEYMOUR, MORGAN & Co., of Brockport, N. Y., manufacture the *Mowers* for the States of Michigan, Illinois and Iowa.

WARDER, BROKAW & CHILD, of Springfield, Ohio, manufacture for the States of Kentucky, Missouri, Southern Indiana and Ohio, except the Western Reserve, which will be supplied by JAMES M. CHAMPLIN, Cleveland, Ohio.

☞Price of Mower, with extras, is $110—Mower and Reaper, $125, in Buffalo. Jan. 18—w2m2t

Super-Phosphate of Lime.

THIS celebrated fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian guano, in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of *phosphate*, which is often the case. All crops are benefited by its application It is composed of ground bones, decomposed by sulphuric acid, to which is added a due proportion of Peruvian guano, sulphate of ammonia, &c.

For sale, with *full* directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT, Ag't for manufacturer,
5 Commercial, cor. of Chatham st., Boston.
Feb. 16, 1851—w&mtf

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A GARDENER.

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March—m1t.

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ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.
Feb. 15—w2tm1t

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EDITOR AND PROPRIETOR.

JOHN J. THOMAS, JOSEPH HARRIS, } Associate Editors.

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THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES

Vol. III. ALBANY, APRIL, 1855. No. IV.

Seed Time and its Labors—No. I.

Every reader of the Country Gentleman has long decided on what field to sow this or that particular crop. He now only awaits fine weather and a dry soil to commence operations. In the mean time there is work enough to do. Plows, harrows, roller, whiffletrees, clevices, harness, &c., should be examined, and if repairs are needed, they should be made before the busy season commences. Seed wheat, barley, oats, timothy, clover, peas, &c., should be procured now; and if it is intended to use guano, or other artificial fertilizers, the sooner it is in the barn, and crushed ready for sowing, the better. The shortness of our sowing season makes it pre-eminently desirable that the agriculturist, above all others, should take time by the forelock. Too many farmers neglect all preparation for their spring work, and when the fine weather comes, having every thing to do in a few weeks, they are in too great a hurry to do any thing well. They must flop over a furrow 16 inches wide, scratch it a little with a harrow, sow the seed, and trust to "good luck" and a virgin soil for a harvest. We know it is desirable to plow as much as possible in a day, yet we are far from being convinced that it would not be better to plow an acre narrow and well, than to turn over two acres in wide furrows which cannot be reduced to a good seed bed without a great expenditure of labor with the cultivator and harrow. Plow *deep* if you can; but by all means let all the soil turned up be thoroughly pulverized, especially for spring crops. Let the soil be dry enough to turn up mellow and work well, before you commence plowing; and then the sooner the seed is in the ground after it is plowed the better.

Spring Wheat.—As far as we can ascertain, spring wheat sustained less injury from the weevil last year, in most cases, than the winter wheat. It did not wholly escape, as some have claimed, but, as a general thing, good crops were obtained. We hazard nothing in saying that a large breadth of land will be sown with wheat this spring. We have always supposed that the earlier it could be got in, after the ground was in good condition to work, the more likely it was to produce largely; but some good farmers think it is better to sow late in order to escape the weevil. Spring wheat does very well on a recently inverted sod; a lighter and more active soil than for winter wheat is desirable. For this reason, ashes, lime, or any thing that will quicken the soil, would be likely to benefit it more than they improve winter wheat. There are several varieties—the Tea, the Black Sea, the Fife, the Canada Club being the most generally approved. One and a half bushels per acre is usually sown. We think two bushels none too much.

Barley.—Owing to our dry, hot and short summers, barley can never be grown here in that perfection which it attains in the moist, long season of the British Isles. English farmers can never, as a general thing, produce wheat equal to our Genesee; but barley is not and never will be here, what it is there, one of the most valuable crops raised on the farm. As food for stock, Indian corn is far superior to it, all things considered. Nevertheless, barley, owing to the large quantity used for malting, has been an exceedingly profitable crop the past few years. Aside from this, there are certain reasons which will always induce many to grow barley;—it is a good crop to follow corn, is easily sown, requires no hoeing, is harvested with little labor, and is off the land in good season for sowing wheat. As a crop to precede wheat it is in this country—though the reverse is true in England—considered less impoverishing to the soil than oats. If any of our readers have any *experimental* knowledge on this point, we should be glad to hear from them.

Barley is usually sown after corn. It should never be sown on a recently inverted old sod. It delights in a gravelly, light, warm, sandy loam. The earlier it is sown after the ground can be got into good condition the better. From two to three bushels are usually sown per acre. We think two and a half bushels quite little enough. English farmers sow three and a half and often four bushels. Greater benefit is derived from the use of the *drill* in sowing barley than in sowing wheat,—at least such is the case in our experience. When the land is in fine tilth—as it always must be for a good crop—we cannot say that rolling will increase the yield, but unless the land is rolled and the surface made smooth, there is always much inconvenience and loss in gathering the crop. If not dry enough at the time of sowing, the land may be rolled when the barley is an inch or two high. In this case be careful not to turn too short, or the roller will tear up the young grain. The better way is to roll round the outside the field first, and so on, finishing in the center. If barley commands as high a price this year as it did last, we think it will *pay* to use Peruvian guano for this crop. Sow about 200 lbs. per acre, *as soon as the land is plowed*, and harrow it in. Superphosphate has a better effect on barley than it has on wheat, but we do not think it will pay in ordinary cases.

OATS.—After barley the next crop to be sown is oats. They will grow on all soils from a stiff clay to a black muck. The heavy land yields the heaviest oats, while the rich mucky soil, abounding in organic matter, produces the most straw, and in very dry seasons a large crop is obtained, but in wet seasons the straw falls down and the crop is much damaged. On the latter class of soils we should not sow over two bushels of seed per acre. On heavy upland three bushels is none too much. If the oats are grown for home consumption, we should advise to sow with them half a bushel of barley and a peck of peas per acre. This is a common practice in England, and enormous crops are obtained. We know of no cheaper method of wintering horses than to grow a mixture of oats, barley, and peas; cut them before the oats are quite ripe, and while there is much nutritive matter in the straw, bind them in small bundles, let them be well cured, and you have a crop when cut up in the straw, on which horses do as well as on hay and grain.

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Spring Wheat—its Varieties and Culture.

MESSRS. EDITORS—In the Country Gentleman of Feb. 15, you give a communication from a correspondent in Brooklyn, (Ct,) desiring information about "Canada Club Wheat." In some editorial remarks that follow, you say "that you would not be surprised if it were found that the Canada Club and the "Fife" are the same variety." Living in the vicinity where the latter was first introduced into this country, having raised or grown a little of both kinds, and having purchased many tens of thousands of bushels of them, I have concluded to give you the views held here respecting them.

They are decidedly distinct varieties. If sown in the same field on the same day, the Club will ripen a week earlier than the Fife, and the latter will grow and mature well in low, moist, rich soils, (nearly swampy,) while the former if sown in such soils, seldom or never does any good. Hence our farmers sow "Fife" on their low lands, and "Club" on the high and dry. There is also a marked difference in the appearance of the straw while growing, the Club having the usual straw green shade, while the other has a distinct bluish bloom upon it. The kernel or berry, is much the same in size and general appearance in both varieties. The main difference consists in the Fife being lighter colored. There is also a considerable difference in the appearance of the heads—the kernels on the Club are closer or more compact than in the Fife. In height they are nearly alike—both are heavy in the bushel, frequently going up to 65 lbs. The straw in both sorts, is of medium length, but that of the Fife is much the stiffest; hence it seldom lodges, although sown on heavy, moist soil. It has never been known to rust with us, which is not the case with the Club. Both descriptions yield well; on suitable, well tilled land, 30 to 35 bushels per acre are common crops, and much more is frequently obtained. The general impression is, that all things being equal, the Fife yields the best.

The Club has been cultivated here, 10 or 12 years—the former not over 6 or 7. I cannot say where the Club came from, but the history of the Fife is well known. The person who introduced it, lives only a short distance from me. While on his way to this country a few years ago, Mr. FIFE obtained about a peck of wheat from a *Russian* vessel, unloading at Glasgow—hence the names, "*Fife*" and *Scotch*. From this small beginning it has spread until each year now witnesses the growing of millions of bushels of it in this Province alone. It has been a favorite from the start, and it does not seem likely soon to lose its good character.

Among our best farmers, spring wheat and seeding invariably follow turnips and carrots. From 1½ to 2½ bushels per acre is the quantity sown—the latter quantity, when the seed is very strong, and when the seed is sown broadcast—the former, where the drill is used. Some *good* farmers do not plow at all before sowing, but merely use the cultivator; good crops have been produced from this mode. The more generally followed and approved plan, is to plow in the spring, harrow in the clover and grass seed (timothy) lightly, and then drill in the wheat. I have followed the latter course, without seeing any reason to change. The latter mode gives one advantage at least over the first, in enabling parties to *weed their wheat* with greater ease.

It was a common practice here a few years ago, to sow spring wheat just as soon as it could be got in, after the snow was off. This is now, to a considerable extent, abandoned, as it has been proved that seed sown in mud, seldom produces ripe grain as soon, or as much of it, as that sown later, when the ground is in a fit condition to receive the seed. A neighbor of mine, got seed from me two years ago, and sowed turnip land about the middle of April. I sowed the same kind of seed, also on turnip land, about the 10th of May. His farm adjoins mine. His land was as well cultivated and as strong and dry as mine. My wheat was in the barn as soon as his, and I got a premium for quality and quantity and he got none.

Very few of our farmers seed with any crop but spring wheat, and as it always (or nearly so,) follows carrots and turnips, the land is in fine condition, and the seeds take well. Some few seed land that is "well used up," to bring it into heart; but the result is generally a failure in all respects. The plan that answers best with us, is to get our land in good heart before seeding with grassss, if we desire good hay and plenty of it.

Before concluding, permit me to say that you may hear of a new variety of Canadian spring wheat, under the name of "Swamp wheat." I do not know it for a fact, but I guess it is only some of our "Fife" wheat, taken from home and baptized afresh. J. SIMPSON.
Bowmanville, C. W., Feb. 27, 1855.

The Dioscorea Japonica.

The introduction of this excellent vegetable into France and the United States, and the cultivation of it as far as known, is worthy the attention of all. The Dioscorea is destined by its delicious taste and great productiveness, to replace in a great measure the Potato. It is a native of Japan, and is cultivated there and in the north of China, in great quantities, and feasted upon by rich and poor, all the year round· This remarkable vegetable was introduced into France in the year 1849, by M. Mautreprey, then Consul of France in China. It was given him by a missionary. Mr. M. sent it to the "Jardin des Plantes," where it remained unnoticed (as it did not flower,) until his return to France in 1853, when he was perfectly astonished to find so invaluable an article still uncultivated and not in all the markets of France.

A friend of mine, M. Palliet, (who by the way is a regular wide-awake horticulturist,) being acquainted with Mr. M., and hearing him describe its great merit, set to work in earnest, and propagated between 50.000, and 60.000 the first year; and is preparing to cultivate it in all the different departments of France. Some of the roots were sent last June to the great Horticultural Exhibition in Paris, and gained for Mr. P. the award for the introduction of the most useful plant, beside which, the "Ministre de Agriculture," presented him with 3000 francs. Some of the roots weighing two and a half pounds a piece, were presented to his Majesty the Emperor; they were eaten by the Emperor and Court, and pronounced excellent; after which Mr. P. received an order for 40.000 to be distributed throughout France.

The cultivation of the Dioscorea is very simple, not requiring as much labor as the potato. It will do well in any soil, but light or sandy is prefered, as they will be more mealy than when raised in heavy bottomed land. The roots are cut about 2 inches long, and planted 10 or 12 inches apart—in rows, and kept clear of weeds until ready to dig, which will be in October and November. If left in the ground two years, it will go on increasing, and the root will improve in quality. If kept dry, they will keep 8 and 10 months out of the ground, which will be a great advantage, especially for shipping purposes. It is estimated that the Dioscorea will exceed any other produce.

It may be remarked here that the inner part of the root is a fine white, very mealy—very agreeable to the taste, resembling arrow-root, and can be cooked in 10 minutes. Its growth and outward appearance, resemble the sweet potato, and there is no doubt it will be cultivated more extensively than that excellent vegetable, as it possesses the advantage of being hardy, and of being kept a much longer time. I have a drawing, and will have a few plants, which can be seen at my establishment. It is unnecessary to say any more at present, as M. Palliet is about publishing a treatise upon the subject, for the opening of the Paris Industrial Exhibition in May next, which any person can obtain a copy of by applying to me.

When in Paris last summer, I had the pleasure of seeing the Dioscorea under cultivation. D. Boll. *Broadway & 50th Street, New-York.*

Cheap Compost for Corn.

Having received the credit for two yeaas past, of having as good pieces of corn as any in our neighborhood, and attributing our success mainly to the use of a single handful of cheap compost, dropped in each hill before planting the corn, we give you a statement as to how we form it.

Supposing a load to contain twenty-five bushels, we take two loads of muck manure from our hog-yard, one load of wood ashes, and three bushels plaster paris. Work the parts thoroughly together with a hoe or shovel. Our corn ground having received a coating of manure before being plowed, the harrow follows the plow lengthwise of the furrows until the surface is well pulverized. We mark one way for the hills with a shallow furrow of the plow, and then draw a chain the other way which shows the place for each hill. The compost gives the corn a good start, and the manure helps it out. We have also, for the two years past, soaked our seed corn in a strong solution of tobacco water, and have not been troubled much with worms. Let it remain in the solution from twelve to twenty-four hours. Wm. E. Cowles. *Canton, Conn.*

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Draining Swampy Lands.

Messrs. Editors—There is upon almost every farm in the country, some portion of it, so swampy, wet and worthless, as to be a real pest to the owner, and would he but realize for how small an outlay such places might be rendered the most fertile and productive portions of his farm, we should at once witness a great change in their management. Two years ago, I had a field of 12 acres of such land, mostly a mucky soil 6 or 8 inches deep,—on a clay subsoil; and covered with bogs and surface water. When it was dry enough to go on to with a team, I took a strong yoke of oxen, a common and subsoil plow, and went to work ditching. I did not attempt to make any drains at regular intervals, merely cutting a deep ditch between the wet land and the dry, and connecting them with a main drain running through the center of the field, aiming to cut off all the springs, and have the water discharge freely through the drains.

The following is my substitute for a ditching machine. I first plow two furrows with a common plow—after cleaning out the furrows, I hitch on to the subsoil plow, and break up from 4 to 10 inches more, according to the soil. This may be repeated till you have your ditches 2 or 2½ feet deep, by having a long yoke on your oxen so that they can straddle the ditch. It is but a small matter after that, to work them down to 3 feet, which is my usual depth where I can get a sufficient descent. After laying down my stone or tile, and covering them with sod or straw, I take my team and back furrow the earth into the ditch again, and I am done. Two smart men will in this way, dig and cover more ditch than a dozen Irishmen with pick and spade, in the ordinary way.

After draining in this way, I cut off the bogs, and plowed 10 inches deep, with two yoke of oxen and a heavy breaking up plow, and the result is that from being almost worthless, I now consider this land the best on my farm. It has paid me the present dry season, more than the interest of $100 per acre, which can be said of but little land in this vicinity.

Having no idea of publishing the result, I am sorry to say that I have kept no regular account with the field, but this much is evident, that the cost has been but trifling compared with the result produced. S. W. S. *Chatham Center, N. Y.*

Successful Grape Culture.

EDITORS CO. GENT.—Having received several inquiring letters in relation to Mr. MCKAY's method of cultivating the grape, I have concluded to answer all through your columns. I should have done it ere this, had I received the following information from Mr. E. A. MCKAY of Naples, Ontario Co., sooner.

In an article headed A Profitable Acre in Western New-York, published in your columns last fall, there is a great mistake respecting the quantity produced. Instead of ten tons, the actual yield was a little over 11,000 lbs. of grapes on an acre. But this must still be considered a great yield, and a very profitable one. Mr. McKay says that the amount over 10 cents per lb., which he received for his grapes, will pay all the expenses of cultivation, gathering, and getting to market. This would leave $1100 clear profit.

Said acre was planted in the spring of 1848, one half with vines one year old, and the remainder with those aged two years—160 vines to the acre, or a rod apart each way. Mr. McKay thinks on a middling steep side hill, 12 feet each way would not be too near. His vines are trained in all cases so as to give them the greatest amount of sunshine. For planting, pits were dug from 2½ to 3 feet deep and 6 to 8 feet in diameter. At the bottom of the pits he placed, "16 heavy loads of refuse from the currier's shop, and eighty dead oxen," a drove of which had been driven into Naples at the commencement of winter, and a large portion of them having died during the winter and spring. Mr. McKay also uses well rotted barn-yard manure, but avoids all fresh unfermented manures. His vines now measure on an average over twelve inches in circumference around the body, nor is there any essential difference in size between the parts of the vineyard planted with one or two year old vines. They are trained on wire trellises 8 feet high, running nearly north and south. No. 12 iron wire, is recommended, with a wooden slat 2 inches wide, 1½ feet above the ground, and a similar one along the top of the trellis. He takes no fruit from his vines until the 4th fall after planting. The first year but one the cane or shoot is suffered to grow, and that is cut back to 3 or 4 buds from the ground the next winter. The second season two shoots are allowed to grow. The third season, the trellis is built, and the two canes are shortened to three or four feet each in length, and brought down horizontally and fastened with leathers to the slats along the bottom of the trellis. The third season, every alternate bud is allowed to grow, and trained to the slats along the top of the trellis, and strapped there about the first of September. The fourth season, the vines will bear abundantly, but a vine of 3 inches span (around the body) should only be allowed to bear 5 lbs. of fruit, and be increased to 10 lbs. for every additional inch of girth to any extent. This can be safely done with good culture.

The ground between the rows of vines, may be cultivated with any low vegetable or plant desired, which will help defray a large portion of the expenses of cultivation. Mr. McKay also cautions against heeding the advice of nurserymen frequently given, to plant vines as near together as 6 or 8 feet.

Such has been the success of Mr. McKay that his experience must prove acceptable to all those who are about to begin the cultivation of this agreeable and healthy fruit. If well cultivated, it will pay well. Nor is there any danger of too many grapes being grown, and the market overstocked, at least for many years, since the demand increases faster than the supply, as all cultivators of grapes well know. The Isabella grape is perfectly hardy in our climate. Yours truly, S. B. BUCKLEY. *West Dresden, N. Y., Feb. 14.*

Cultivation of the Ruta Baga.

This root can be easily and profitably raised, in the following manner: Take sod or stubble ground, and plow it in the fall or early in the spring. The last of May, spread on sufficient manure to make the ground rich. The quantity will depend upon the quality of the manure and the previous condition of the soil. Let the plow, drag and bush succeed each other, until the manure is thoroughly incorporated with the soil and the ground made fine and light. On sod, this process should be repeated three times at least, to accomplish it. Throw up the ground into ridges two feet apart. Bush the ridges lengthwise. This will remove the stone and sods from the top of them. The first week in June, with a hand drill, put in the seed, at the rate of one pound per acre. A tin cup, with an awl hole in the bottom, may be substituted for the drill, when there is none at hand. A handle, twenty inches long, should be put upon the side of the cup. Pass along the rows, shaking the cup back and forth near the ground. Cover the seed lightly with a rake.

When the third leaf begins to start, stir the ground with a plow between the rows; hoe and thin out the plants, leaving but one in ten inches. Plow and hoe at least three times, and plaster twice. If the insect troubles the plants put on ashes. The crop will depend much upon the attention it receives after the plants are up. Gather in the fall, as soon as the hard frosts commence. Cut off the tops with a hoe, and pull out the turnip with a potato hook, knocking off the dirt at the same time. When they are dry, take up one in each hand and thump them together as they are put into the basket. In this way, if the turnips are of good size, two men can gather, and put into the cellar, one hundred and fifty bushels in a day. Two many should not be put together, and the cellar should not be made too warm, or they may rot.

An efficient brush may be made by taking half of a round stick, six inches through and seven feet long, for the head; bore seven holes through it, ten inches apart, with a two inch auger. Insert in these holes, saplings of good length filled with fine brush. The flat side of the head should be placed forward. Such a brush passed over a meadow in the spring, where cattle have run in the winter, will pulverize and spread the manure better than it can be done by hand and with much less expense. HIRAM OLMSTEAD. *Walton, Del Co. N. Y., Jan. 12, 1855.*

Small Potatoes.

Messrs. Editors—It seems to be as yet, an undecided subject with many farmers, whether small potatoes are suitable for seed, or whether they are as good as large ones to plant; some asserting that they are, and others as strenuously denying the fact. At the present time, when potatoes bear so high a price, and the prospect being that in some sections it will be difficult to obtain a sufficient quantity of seed for the next crop, it appears to me to be of considerable importance that facts in relation to the subject should be disseminated among the farmers who are engaged in raising this crop. I propose, therefore, to give the result of my experience on this subject.

Some eight years since, at the time of planting my potatoes, I came short of seed to plant. Previous to this time I had used large whole potatoes, or the seed ends cut off, for seed, and suppposed that no others would answor; and now, according to tho old theory, I must either go and buy more seed, (which was scarce, and dear at that,) or put in some other crop on my land which was fitted for potatoes. I resolved to do neither; but try the experiment of planting small potatoes; the largest being about the size of common plums, but the most of them being smaller. I carried several bushels of these *little things* to the field, and commenced planting them, putting from two to four in a hill. My father, who was at work with me at the time, laughed at me some, saying he "guessed if the crop was as small as the seed, that I should get sick of digging them;" and I thought so myself. Indeed it looked like small business any way I could fix it. However I finished my planting with them, and waited for the result. The potatoes in the different parts of the field came up at the same time, but the vines from the small potatoes were not as large and thrifty as those from the large ones. At the first hoeing, there was some difference in the tops, but after that the tops from the small potatoes looked as well as any of the field, and continued to through the season. When I came to dig them, I found the potatoes where the small seed was planted, to be as good in every respect, as those where the large potatoes were planted. There were as many in a hill, and the potatoes were as large, and with as few small ones, as those from the large seed.

At the time I commenced using small potatoes for seed, the farmers around me said, perhaps you will get one or two good crops, but *then* your potatoes will run out—they will be all small ones, and they will not yield any, and you will have to go to planting large potatoes again. But as yet I have found no occasion to return to my former method of planting. Since that time I have used small potatoes for seed; not so small as some of those that I planted at first were, but such as are too small to eat, and which the dealers in potatoes will not buy for market. In going about among the farmers who use large potatoes for seed, I find no better looking, or better eating potatoes, than those which I raise from small potatoes, and other things being equal, I get as large crops. One spring, soon after I commenced using small potatoes for seed, a farmer of this place came to my house to purchase potatoes for seed. On going into my cellar, where my potatoes were, he remarked, "What a fine lot of potatoes—those are nice—they are the best I have seen this spring." After we had put up the potatoes which he had bought, he turned to a pile of small ones which I had picked out for my own seed, and inquired what I was going to do with those little potatoes. I replied, that I was going to plant them. Said he, "Those are not good for any thing to plant, are they?" I told him that the potatoes he had just bought were raised from as small potatoes as these little ones, and that I would give him some of these small ones if he would take them home, and plant them on the same kind of soil, and give them the same treatment as he did the large potatoes. This he agreed to do, and he being a careful, systematic farmer, I had no doubt but that he would give them a fair trial. In the fall after he had harvested his crop, he told me that the small potatoes produced as many, as large, and as good ones, as the large ones; that he was unable to see any difference in the potatoes produced from the large and small seed.

Many of the farmers in this vicinity, after seeing the experiment fairly tried, are using small potatoes for seed. This winter I have had several applications from potato dealers for small potatoes for seed, who inform me that the farmers whom they purchase from, are generally adopting the way of using small potatoes for seed. C. T. Alvord. *Wilmington, Vt., Jan.,* 1855.

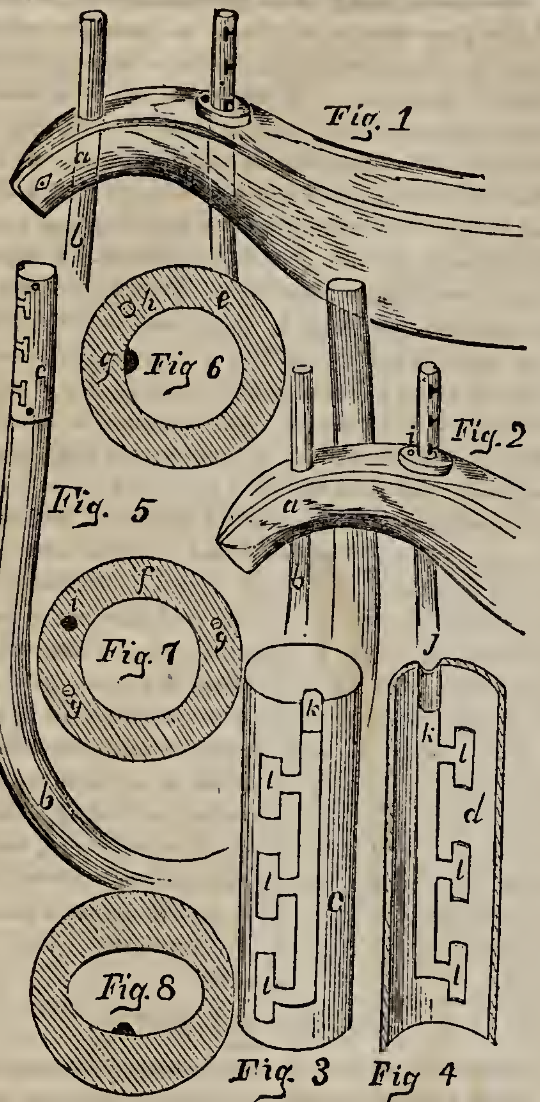
Cure for the Heaves.

Messrs. Editors—I have occasionally seen in your excellent paper, remarks upon heaves in horses, and a course of feed prescribed as a relief—the disease being generally considered incurable. I give below a very simple and perfect cure for this disease:

Keep the horse one winter on cornstalks; and if you feed any grain, let it be corn in the ear, and when you turn the horse to grass in the spring he will be perfectly cured of heaves. In the Southern States, where horses are kept exclusively on corn blades (the leaves of corn stripped from the stalk and dried) and corn, heaves are unknown. A heavey horse, taken from the north into the southern states, and fed on blades and corn, is very soon cured. I have owned several heavey horses, which I have cured in this state, by feeding as above. I would not hesitate to purchase a horse otherwise valuable, because he has the heaves. E. Kellogg. *Canaan, N. Y.*

Cure for Wens.

Messrs. Editors.—I cured a wen on the under jaw of a three year old steer, by extracting an ulcerated tooth which was the cause of it. It was about the size of a hen's egg. After extracting the tooth, it disappeared in about four months. I understand this practice has been successful in many cases. Milton Smith. *Middlefield, Mass.*



Improved Ox Yoke.

The annexed figures are views of an improvement in Ox Yokes, for which a patent was granted to Heman B. Hammon, on the 16th of last May. The nature of the invention consists in securing over the end of the bow, the ferrule, *c*, fig. 3, and securing the bow in the beam, *a*, fig. 2, with the washers, *e* and *f*, figs. 6 and 7.

a a is one-half of the yoke beam made in the usual manner, showing the bow, *b*, secured in the yoke beam by the ferrule, *c*, and the washers, *e f*. *c*. fig. 3, is a view of the ferrule before it is secured to the bow. *d* fig. 4, is a longitudinal sectional view of the ferrule, *k* is a groove to receive the projection, *g*, of washer. *e*. *j* is a concave in the upper end of the groove, from three-eighths to one inch in length, to prevent the top of the ferrule from spreading apart when the ferrule is on the bow. *l l* are apertures, two or more, to receive the projection, *g*, after it has passed down the groove, *k*. The apertures, *l l*, and projection, *g*, are to hold the bow in the yoke beam, as at *a*, fig. 2. The object of having one, two, or more apertures in the ferrule, is to suit it to any sized necks. *e* and *f* are views of the washers. *h* is a hole through the washer to receive the pin, *i*; the pin, *i*, and hole, *h*, is to prevent the washer, *e*, from being disconnected from the ferrule, *c*, if by accident the bow should be raised up through the yoke beam, as shown in fig. 1, and the washer, *e*, should be raised out of the lower part of the aperture, *l*, as shown in fig. 1. *g g* are screws to firmly secure the washer, *f*, to the top side of the yoke beam; *m*, is a screw to secure the ferrule to the bow. Fig 5 is a view of the bow with the ferrule attached.

It will be observed that the washer, fig. 8, has an oblong opening in it; this is to make it adjust itself to a yoke, the surface of which is either straight or hollowed, as in the oldfashioned kind. The claim of this patent is for the combination of the ferrule, *c*, or its equivalent, and the washers, *e* and *f*, for fastening ox bows, as thus illustrated and described.

More information respecting this improvement in ox yokes may be obtained by letter addressed to the patentee, Mr. Hammon, at Bristolville, Trumbull Co., Ohio.—*Scientific American.*

Cleanliness of Cow Stables, &c.

Messrs. Editors—A recent discussion in your paper, in regard to the cleanliness of the cow stable, has induced me to put my experience in that matter to paper. Having experimented in direct reference to that object, for a few years past, and having come to definite conclusions by testing its operation for two years or more, I now, in full confidence, offer to the public the following plan as *the desideratum.*

Improved Stalls for Cows, Oxen, Horses, &c.—The floor or platform on which the animals stand, is so constructed that the part occupied by each animal can be moved forward or back separately; that is, any part can be graduated to the length of the animal that is to occupy it. The continued platform, thus made, is raised eight inches from the main floor, and, projecting a little over that floor, leaves a space whereby the manure is easily passed into the cellar. For oxen and horses, the platform is made of strips of joists, confined at one inch asunder.

In connection with this improvement in the floor part of the stalls, to ensure success it becomes necessary to have the crib part so constructed, that the animals will be prevented from reaching, or walking ahead. This is done by having a rack for hay, and a box crib underneath, with a space of about one foot between. This space enables the animals to lie down, or to rise, as the cribs are within about one foot of the stanchions.

Another improvement is accomplished by bolting all the slip stanchions to a stringer connecting with a lever whereby all of them can be operated in one second of time. This may seem somewhat of a "child's toy," but I can assure gentlemen that a daily use of one 36 ft. in length, for two or three years has saved me much time and perplexity. A stock of cows, &c, stabled in this manner, will continue as clean throughout the year, without litter, as others will during summer in pasture and yard.

There are other novel features about my barn. At one end is a large square, capable of containing 25 tons of dirt, a portion of which is daily mixed thoroughly with the droppings before passing them into the cellar. There is also a scaffold over the stables allotted to sawdust, ashes, &c., which is run down as occasion requires. Corn is always thrown in to encourage the pigs to work well. The cellar for manure, is 17 by 36 ft., without pillar or post; at one end is the opening of a subterranean passage, leading to a piggery; at the opposite end, are archways, leading to beds. On the walls, only 4 ft. high, that separate these compartments, rests the clay bank as mentioned above.

The partitions throughout the cellar are substantial brick walls. Under the main floorway of the barn is the root-bin, 6 by 34 ft., with a slat or open floor, and perfect ventilation underneath. Separated from this apartment, is the fruit cellar, 13 by 60 ft., with doors at each end; and here let me say is the place to keep apples. It is a fact that they will be in as good order and condition, on the first of March, kept in an out cellar like this, as others will in two months, in common house cellars. We have now nearly 300 barrels of apples on hand, 200 barrels of which are papered like oranges, and are to be shipped soon to the English market. J. W. *Harvard, Mass.*

The Cultivation of Grasses—No. 1.

The Journal of the Royal Agricultural Society of England for 1853, contains a paper "On the relative Nutritive and Fattening Properties of Different Natural and Artificial Grasses," by J. T. Way, Consulting Chemist to the Society. He has made analyses of some thirty-four species, collected plant by plant, as they were growing naturally in the soil, *at the time of flowering*. Hitherto nearly all our information respecting the nutritive value of the grasses has been derived from the celebrated Woburn experiments conducted by Mr. George Sinclair. It has long been known, however, that his method of determining the amount of nutritious matter in the plant was far from accurate, and hence the necessity of investigations conducted in conformity with the present more advanced state of chemistry and physiology. We have much to learn in regard to the cultivation of grasses, ere we can show such permanent meadows and pastures as are found even in the poorest cultivated districts of Great Britain. Few American farmers have any just conception of the productiveness of a well stocked, underdrained, and irrigated meadow, though all must at once see the value of such a meadow in furnishing food for stock and in increasing the fertility of the upland portions of the farm. It is money thrown away to sow choice grass seeds on a wet ill prepared soil, but after proper cultivation of the soil it is very important to sow a good variety of the best seeds. The English farmers frequently sow a dozen kinds of grass seeds while we seldom sow more than two or three, even when laying down land to permanent grass. It may be argued that if we have one or two that are best adapted to our soil and seasons, it would be foolish to occupy the land with those of a less valuable character. But there is no grass that is best for all purposes and at all seasons of the year. Sinclair, our best authority, writing on this subject says: "A certain supply of the most nutritious herbage will be in vain looked for from any one species of grass, and can only be found where nature has provided it in a combination of many."

We are very far from possessing sufficient data to enable us to decide which are the best grasses for pastures and meadows in this country—since it is well known that some of the most popular English kinds prove very inferior with us; and we have yet to take the first step in an experimental investigation of American grasses—yet we think a few articles setting forth some of the *opinions* of practical men, so far as they can be ascertained, may do good in directing attention to the subject. The following table* shows the composition of a few of the specimens analyzed by Prof. Way. The first column gives the percentage of water in the grass when gathered, at the time of flowering. The other columns show the percentage amount of albuminous matter, or flesh-forming principles, of fatty matter, of heat producing principles, of woody fibre, and mineral matter in the *dry substance* of the grass.

We are not treading on controverted ground in saying that the less water, woody fibre and mineral matter the grass contains, the more nutritious will it be found. Some will claim that the nutritive value of the grass is in proportion to the amount of "albuminous or flesh forming principles" which it contains; but this, to say the least, is very doubtful. The fatty matter and the "heat producing principles," in our opinion, afford a better test of value, especially for fattening purposes; though it cannot be said that these alone, irrespective of "flesh forming principles," determine the worth of a food. A glance up the first column will show a striking difference in the percentage of water,—timothy having much the least, and the sweet scented Vernal grass the most. But we leave the figures to speak for themselves.

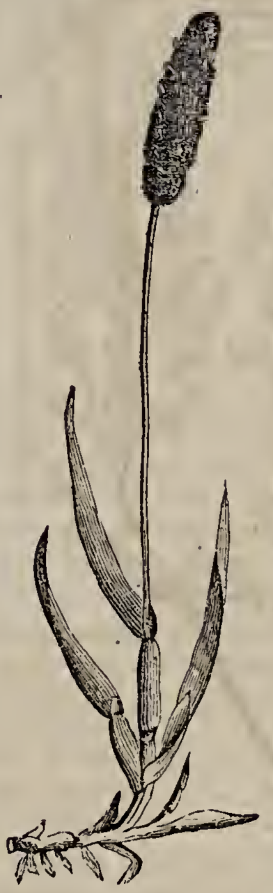


Fig. 1.

Timothy, (*Phleum pratense.*) Fig. 1.—This grass is called Meadow Cats-tail in England. It is said to have acquired its name of timothy from its first introducer into Maryland, Timothy Hanson. In the New England states it is known as Herd's grass. It is admirably adapted to our climate, flourishes in all soils except an undrained swamp or a blowing sand; is hardy, easy of cultivation, of luxurious growth, and makes the most nutritious and palatable hay for horses of any of the grasses. Between 38° and 44° north latitude it is the most popular grass cultivated on arable land. For permanent meadows, its great drawback is in yielding little aftermath. Prof. Way's analyses show it to be the most nutritious of grasses, yet it is not prized in England from "being harsh, late and yielding little aftermath, and from possessing no quality in which it is supposed not to be excelled by the fox-tail grass." This is probably a hasty conclusion which Way's results will do much to reverse, since they show green timothy to contain twice as much nutritive matter as the fox-tail.

Red Top, Herd's Grass, Foul Meadow or Common Bent. (*Agrostis vulgaris,*) Fig. 2.—This grass springs up naturally in wet, swampy land. It is sown with timothy by many good farmers in order to thicken the bottom of the hay, form a closer pasture for cattle, and furnish aftermath. We are sorry it has not been analyzed by Prof. Way, as there is much difference of opinion among practical men in regard to its value. The late John Delafield, Esq. in his "General view and Agricultural Survey of the County of Seneca,',

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* For table see next page.

Common name of Plant in this country, and Botanical name.	Percentage amount of Water in the several grasses at the period of collection.	Percentage composition of the **Dry Matter** of the several grasses.					
		Albuminous, or flesh forming principles.	Fatty matters.	Heat producing principles—starch, gum, sugar, &c.	Woody fibre.	Mineral matter, or ash.	Date of collection.
Timothy, (*Phleum pratense.*)	57.21	11.36	3.55	53.35	26.46	5.28	June 13
Orchard Grass. (*Dactylis glomerata,*)	70.00	13.53	3.14	44.32	33.70	5.31	" "
Rye grass. (*Lolium perenne*)	71.43	11.85	3.17	42.24	35.20	7.54	" 8
Meadow Foxtail, (*Alopecurus pratensis,*)	80.20	12.32	2.92	43.12	33.83	7.81	" 1
Ky. Blue grass,(*Poa pratensis,*)	67.14	10.35	2.63	43.06	38.02	5.94	" 11
Rough Meadow grass,(*Poa trivialis,*)	73.60	9.80	3.67	40.17	38.03	8.33	" 18
Sweet scented Vernal grass,(*Anthoxanthum odoratum,*)	80.35	10.43	3.41	43.48	36.36	6.32	May 25
Downy Oat grass,(*Avena pubescens,*)	61.50	7.97	2.39	49.78	34.64	5.22	June 11
Hard Fescue grass, (*Festuca duriuscula,*)	69.33	12.10	3.34	40.43	38.71	5.42	" 13
Soft Meadow grass,(*Holcus lanatus,*)	69.70	11.52	3.56	39.25	39.30	6.37	" 29
Italian Rye grass,(*Lolium italicum.*)	75.61	10.10	3.27	57.82	19.76	9.05	" 13

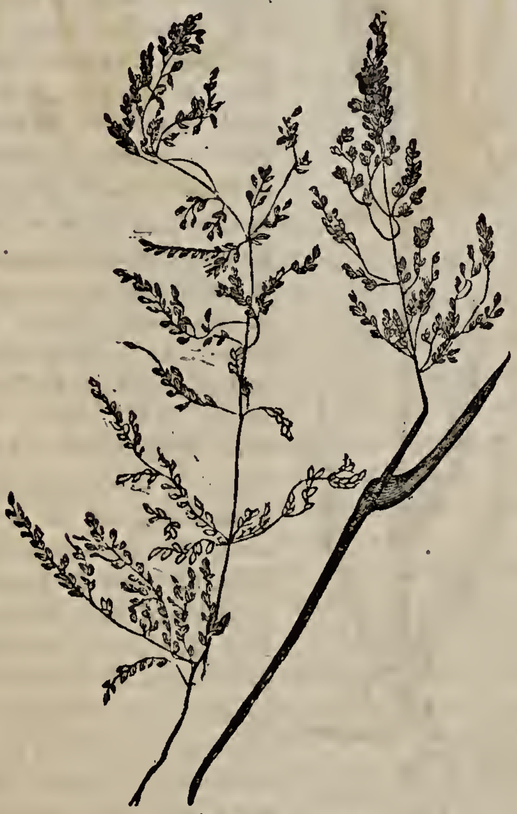
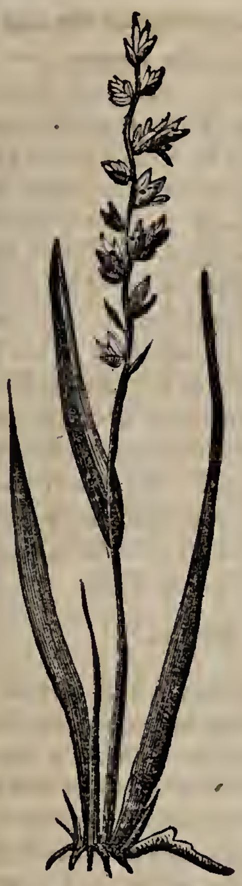


Fig. 2—*Red Top*

says: "It would be an improvement to the hay and pasture grounds of this county, if red top grass were more generally cultivated. Red top is a valuable and acceptable fodder for cattle, and another important characteristic is that it is a less exhausting crop than timothy as it contains only four or five per cent of potash while timothy contains over thirty per cent." The fact that the ash of timothy contains six times as much potash as red top is no evidence that it is more exhausting to the farm; if it was, we must consider white and red clover much more exhaustive to the soil than most of the grasses which, to say nothing of scientific experiments, is contrary to all experience. We cannot, therefore, consider red top valuable *because* it contains little potash. It may be useful on swampy lands where better grass will not grow, but for uplands it is more than probable that there are other grasses which will be found to possess the good qualities of red top without its bad ones. In the New England states it is called Foul meadow grass, from the "great difficulty with which it is eradicated when it has once obtained a footing." It is said that the Pennsylvania farmers are so much opposed to having this grass rooted in their fields and meadows that they reject clover and every other grass seed in which the least red top appears. Nevertheless, red top has some good qualities, and many warm friends among the best cultivators in the country. In Massachusetts it is said there are two varieties of *Agrostis vulgaris*, generally known under the name of red top; one considerably larger and later in flowering than the other, and is better adapted to cold moist lands. The small kind is however held in great estimation for its nutritive qualities, especially for feeding working oxen, for which it is, in some districts, thought more valuable than any other grass.

Rye Grass, (*Lolium perenne*, Fig. 3.) In the alternate system of British Agriculture, this grass, though somewhat on the wane, still holds the foremost rank. **John Bull**, dear old fellow! is well known to have a great love for *old* things, and, as this grass has been cultivated from time immemorial, its popularity may to some extent be owing to this feeling. In some respects it is a very indifferent grass. Like timothy it produces little aftermath; in pastures, if not kept very closely cropped, the cattle will not eat the culms; and when allowed to approach maturity, it impoverishes the soil in a high degree. According to **Way**'s analyses, however, it is a highly nutritious grass, though much inferior to timothy, and it flourishes on nearly all soils, and under different treatment. It produces an abundance of seed, which can be easily collected and the hay used for fodder afterwards; and it furnishes in its first year of growth a good supply of early herbage. It is usually sown in the spring with barley, at the rate of from one to two pecks per acre, in conjunction with from ten to twenty pounds of the red, white and trefoil clovers. Land so seeded, is seldom



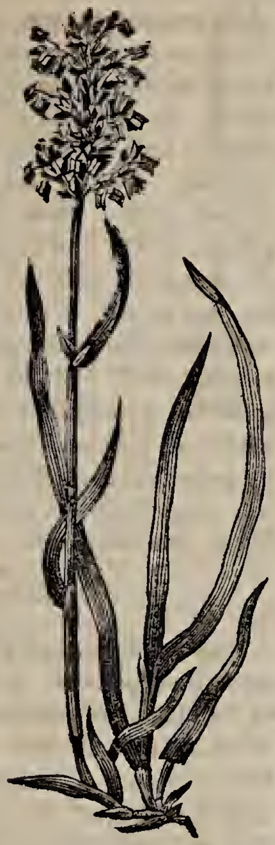
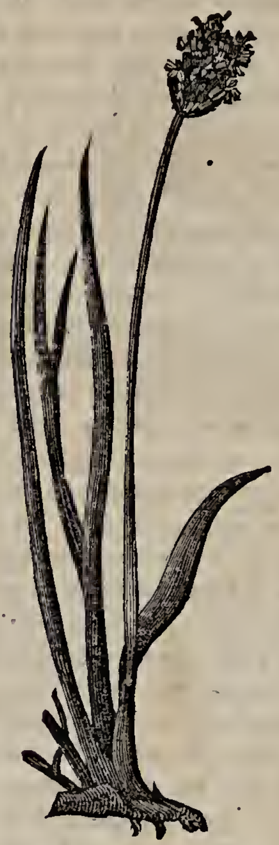


Fig. 3—*Lolium perenne.* Fig. 4—*Anthoxanthum odoratum.*

allowed to lie down longer than two years. There are a number of varieties, some of which have been tried in this country, and, we believe, in most cases, are highly esteemed, especially as food for sheep. It cannot for a moment be supposed that rye grass will ever take the place of timothy in this country, yet, as variety is deirable, it is worthy of more attention than it has yet received.

SWEET SCENTED VERNAL GRASS, (*Anthoxanthum odoratum*, Fig. 4.) Except that it has some nine per cent more water, the sweet scented vernal is very similar in composition to rye grass. It is found in nearly all British pastures, though it is seldom sown, and, as a general thing, is held in but little estimation, chiefly from the fact that cattle and sheep manifest as little partiality for it as they do for the dry bents of rye grass. It has, however, some excellent qualities. It is early, hardy, permanent, and grows late in the fall, and, in England at least, flowers about the middle of April, and continues to throw up flowering stalks throughout the entire season. It affords an abundance of rich aftermath, and for this reason might be advantageously sown with timothy, or rye grass, which is deficient in this particular. It is found in most parts of the country, and, as its name implies, is remarkable for its fragrance. It abounds in the rich pastures near Philadelphia, and it is claimed that the fine flavor of Philadelphia butter is attributable to this grass. This opinion has occasioned much discussion, from which it would seem that the claim cannot be sustained. LOUDON speaks of it as among the best pasture grasses, and as "that which gives the fragrance to natural or meadow hay." Low thinks "it can scarcely form the subject, in any case, of useful cultivation."



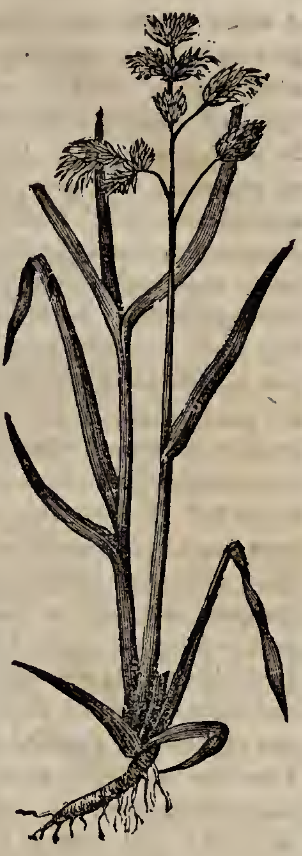


Fig. 5—*Alopecurus pratensis.* Fig. 6—*Dactylis glomerata.*

MEADOW FOX-TAIL GRASS, (*Alopecurus pratensis* Fig 5.)—This grass is indigenous to the middle states, but we are not aware that it is cultivated to any extent. In England it is much esteemed as a sheep grass in conjunction with white clover. It thrives best on strong clay soils, but it is said not to attain its fullest productive powers from seed till four years. It is therefore not adapted to alternate systems of tillage. JOHNSON says "it is one of the best grasses for permanent pasture, and should never form a less proportion than one-eighth of any admixture of different grasses prepared for that purpose; its merits demand this, whether in respect to early growth, produce, nutritive qualities, or permanency." WAY'S analyses show it to be one of the best of grasses so far as nutritive matter is concerned.

ORCHARD GRASS, (*Dactylis glomerata*, Fig. 6.) This grass has been highly recommended in England, where it is known as cock's-foot grass. SINCLAIR observes "that if one species only is thought preferable to another in the alternate husbandry, that species is the Dactylis glomerata, from its more numerous merits." We have seen highly productive meadows composed principally of this grass, in the light, sandy soils of the county of Norfolk. They were kept very closely cropped by sheep, and for the two or three first years, would yield more nutrititious herbage, taking the whole year round, than any other grass. In this country, orchard grass has been highly recommended, but it would appear that it has not come up to what was anticipated

A writer in the *Ohio Cultivator* having read "the glowing accounts respecting the excellent qualities of orchard grass," tried it, and says "it grew tolerably well, and certainly is the best grass I ever had to keep, for nothing will eat it. It is in a field with other grasses, and while other grass was gnawed down close, the orchard grass stood fresh and green." English and American writers agree that it must be eaten close or mown when quite green, or it becomes course, hard and unpalatable. In this country, it is right for cutting at the same time as red clover, and is in this respect preferable to timothy, which does not attain its full nutritive growth for some weeks after the early or common red clover. Another desirable quality is, that it furnishes a good aftermath, and flourishes quite late in the fall. Loudon says of orchard grass: "It has been found highly useful as an early sheep feed. It is early, hardy and productive, but is a coarser plant than rye-grass, and requires even greater attention in regard to being cut soon or fed close." Sinclair had a field laid down in two equal parts, one with rye-grass and white clover, and the other part with orchard grass and red clover. The field was depastured with sheep. From the spring till midsummer, the sheep kept almost constantly on the rye grass; but after that time they left it, and adhered with equal constancy to the orchard grass during the rest of the season. By reference to the table in last number, it will be seen that it is slightly more nutritive than rye grass; and that the analyses confirm the good opinion which English farmers have formed of this grass.

Cultivation of the Sunflower.

Messrs. Editors—I wish that you or some of your readers, would give me some information relative to the culture of the Sunflower, and the manufacture of the seed into oil. Last spring I planted a variety of the seed, called the Ohio mammoth, in the hills where the grubs had eaten up the corn. I planted the seed during the first hoeing of the corn. It was quite late However the seed all came to maturity before the frosts.

I could not judge of the quantity of seed to the acre, as it was scattered over the whole piece. I gathered nine bushels of seed, however, from the whole, (2⅛ acres.) I took 1¼ bushels to a *linseed oil* mill, to see what could be done. The man who worked the mill, told me he had never worked any of the seed, but thought it ought to be dried first. When he made it up, it had shrnnk four quarts on the whole, leaving 1⅛ bushels. It made about five quarts of oil. Subsequently he made all the seed into oil. The seed had got very dry, and had shrunk nearly a bushel on the whole lot. I did not get as much oil from a bushel as at first. I think it must have been too dry. The meat of the seed is very oily. But it is enclosed by a dry, thick husk, which takes a great deal of the oil in pressing. I think there is six quarts of oil in a bushel, if it could be got out. The dry seed weighs about as heavy as oats. The oil burns with a beautiful clear white light; and if it could be got out of the seed would be quite an item of saving to the farmer.

The heads of that which I raised, were well filled, and quite large, some of them being even twelve inches across. The corn did not seem to be injured at all by standing near them, but on the contrary was better if anything. I would like to know if they would grow as well planted alone, and how thick they could be planted? And whether it would not be better to break off the suckers as fast as they appear, and let only the top head grow? Whether best planted early or late? And finally should the seed be dry or not, to manufacture into oil? And also be so kind as to give me the process of making it into oil. For it evidently requires a different treatment from flax seed. If you will take the pains to answer all these questions satisfactorily, you will oblige others as well as your humble subscriber. M. S. *Martinsburgh, N. Y., Feb.* 20 1855.

Draining by Wells.

Messrs. Editors—You wish to know if land can be drained by wells. I have made one experiment only, and that was entirely successful. I owned a piece of land on which there was a basin of about three-fourths of an acre, which received the surplus water of at least ten acres. It would sometimes be from two to three feet deep in the center. The water stood in the basin at least eight months in the year, and the basin was full every hard rain the other four months. On the 3d of August, 1841, I dug a well nine feet deep in the center of the basin, and came to living water, which rose very rapidly, so much so that I expected to see it run over the top in a short time. I think the water rose at least two feet in ten minutes and then stopped, and remained at that depth until a heavy rain of three days. I then went to look at the well, expecting to find it full and running over; but to my utter astonishment, there was not more than two and a half feet in the well. It had risen about four feet during the storm I should judge by the marks on the side of the well. There must have been a great quantity of water run into the well, as at least ten acres discharged its surplus water into it, and the rain fell in torrents during three days. I then dug four open drains leading into the well, and the land has been sufficiently dry for wheat, corn, oats, or grass, ever since. It has been in grass for the last 12 years, and has borne a heavy crop of first rate hay.

I should advise in all instances, to dig until you come to living water, and then the water will pass off in the fissures of the earth. I have not the least doubt but that almost any spring can be drained by digging a well at a little distance, and leading the water into it. I would state that I filled the well full of stone, thinking it would be cheaper to dig a new one than to stone it and keep it covered, if it should fail to carry off the water. Asa Hubbard. *Middletown, Ct.*

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Plant corn and potatoes early—there is much greater loss by too late than too early planting.

Fruit—its Enemies and Benefits.

The Apple-Worm and Curculio.

Messrs. Editors—Many thanks to you for your various articles on the half-doing-system and following the multitude, and especially for that on "the greatest enemy of Fruit Culture." To me, and I trust to all that find the same difficulty in making war against the old ways, it is indeed cheering; and I hope you will not relax in your efforts though it would not be strange if you became disheartened, in bearing up under all the discouragements you meet with.

But as I mean not to be tiresome, I will suggest a query or two. Agreeing with you entirely as to the greatest enemy of Fruit Culture, I would inquire whether, among the smaller ones, the common Apple Worm or Codling Moth, (if indeed he is distinct from the Curculio,) is not of more comparative consequence than generally spoken of, and if any remedy can be found for it?

Would it not be well also to dwell much, in the horticultural and agricultural papers on the moral and physical effects of the culture of good fruit, and thus in some measure tend to break up the supreme attachment to the *Dollar* in the eyes of the community?

Might not the American Pomological Society properly devote some time to the discussion of the effects of fruit culture on the physical and moral well-being of man?

Allow me to express the opinion also, that beauty, size and productiveness, (which are in most estimation for market fruits,) are not sufficiently valued by most fruit growers, in comparison with the highest delicacy of flavor, (and thus fruit is prevented from becoming as common as it otherwise would be,) inasmuch as the benefit of the mass of the people is of more consequence than that of the few. S. M. *Kensington, Ct.*

In reply to the inquiry of our correspondent, we may remark that the apple-worm is becoming a formidable enemy. Of some varieties, scarcely a single specimen was found free from it the past season. It is totally distinct from the curculio, which is a beetle or hard-shelled insect, known by the very general and erroneous name of "bug," while the apple-worm is strictly a caterpillar, changing, in its perfect state, to a "miller."

Don't copy

The curculio, while yet in the larva (or "worm") state, is a little whitish grub, destitute of feet, and resembling a maggot in appearance, except that it has a distinct, rounded, light brown head. The apple-worm, on the contrary, has, when young, a black, heart-shaped head, the top of the first and last ring is also black; like all caterpillars, it has legs and there are four pairs of blackish dots on the rings of its body. When older it assumes a flesh color, the head and two black rings turn brown, and the dots disappear. The curculio lays its eggs in the side of the young fruit, through a *crescent-like* incision which it makes in the skin; while the miller of the apple-worm deposits its egg in the blossom and makes no incision. The curculio not unfrequently stings the apple, as the crescent-like prints so clearly exhibit; but the apple-worm never lays in the plum and other stone fruit, which forms the common home of the curculio.

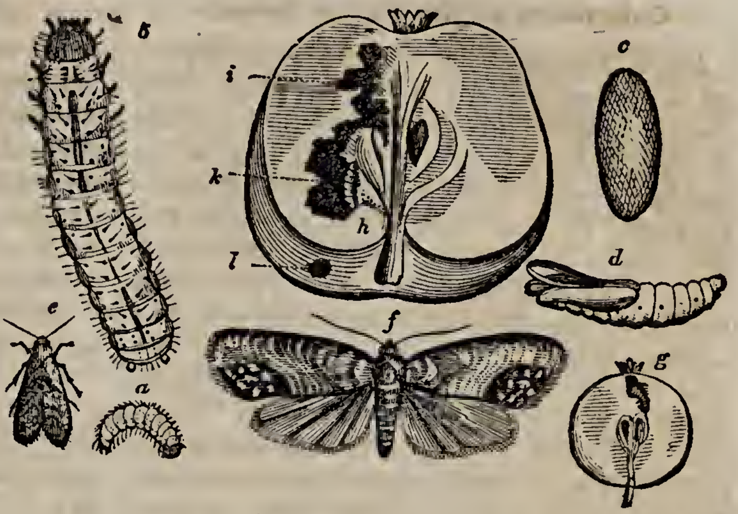

Fig. 3.—*The Apple Worm.*

The annexed figure (Fig. 1,) represents the curculio in its perfect or beetle state, and Fig. 2 shows a magnified young plum with the crescent-like incision made through the skin in laying the egg. In its perfect state the curculio is a rough, dark brown or blackish beetle, appearing to a hasty glance like a dried blossom or bud, the resemblance being increased by its habit of drawing up its legs and bending in its snout, and remaining motionless, when disturbed

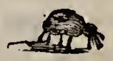

Fig. 1.

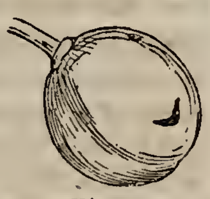

Fig. 2.

The accompanying figures exhibit the apple-worm in all its transformations; *a*, is the larva; *b* the same magnified three times in diameter or length; *c*, the cocoon which it spins when fully grown; *d*, the pupa within this cocoon, the second state to which it changes; *e* and *f*, the male and female perfect insects or millers; *g*, the young larva, just hatched near the blossom end of the young apple; *h*, *i*, *k*, the progressive work of the worm within the apple: and *l*, the hole it makes to get rid of the refuse fragments of its food, and through which it finally escapes when the apple falls to the ground.

Early apples are more liable to the attacks of this insect than others, and when they attain full size before falling, it causes their premature ripening.

The best remedy for this insect is to allow a herd of swine to run in the orchard, sufficiently numerous to pick up all the freshly fallen specimens, and thus destroy the worms. As the cocoons often lodge in the rough bark of the trees, scraping the bark or washing it with lye is a useful auxiliary. It is said, also, that a bunch of woolen rags lodged in a fork of the tree will attract numbers, when they may be destroyed; but what the comparative efficacy of these two remedies may be, we are unable from experience to inform our correspondent.

Cultivation of the Yellow Locust.

MR. L. TUCKER—I will tell you how I managed to get a grove of yellow Locust trees. About twenty years ago, I sowed half a pound of locust seed in beds, the same as I sow beets or carrots. I prepared my seed by pouring hot water on it, and letting it stand a few hours. The next spring, I took up my seedling trees, and set them out on a piece of ground that was so poor that it would hardly turf over. I plowed some furrows twelve or fifteen feet apart, laid the roots of my seedling trees into them, about two feet apart, covered them with my hoe, righted them up with my hands and let them go without further cultivation. At this time I have a beautiful grove of trees, straight and thrifty, and many of them long enough for fence posts The effect on the land is wonderful. It produces ten times the feed it did before the trees were set out When I took possession of my farm, I found that acre had been skinned until it was almost worthless. Now it produces double the feed of any acre of pasture I have. I take no little pride in showing my trees, and the luxuriant growth of white clover under them SOLYMAN CUNE. *Brattleboro, Vt.*

Spring Wheat—Different Varieties.

MESSRS. EDITORS—J. B. Whitcomb, of Brooklyn, Ct., makes some inquiries respecting the different varieties of spring wheat. We have in our town, a superior variety of spring wheat, which goes by the name of China or Black Tea Wheat, and by some is called Sabtarian Wheat. The origin of this beautiful wheat is this. Some 12 years since, there was found by a merchant in Petersburgh, Rensselaer Co., N. Y., 6 or 7 kernels of this kind of wheat in a chest of black tea, which was sown, and the product of that wheat was sent to a friend in Granville, (an adjoining town,) and is giving good satisfaction to all that have tried it. It has been raised in my neighborhood for 3 years, and now has the preference of all the different varieties of of spring wheat. I have obtained some of this wheat and intend to sow it the coming spring. It combines more good qualities than any variety here known. The straw is very stiff, and I have never known it to rust. It threshes very easily. It should be cut rather early, as it is liable to shell if left till fully ripe. The quality of the flour is equal to any other spring wheat. It is said to yield well—from 15 to 40 bushels per acre. The present price for seed is $2 50 per bushel. E. S. S. *Hartford, N. Y.*

Grafting the Peach.

This, in the northern states, requires great skill for it successful performance, but at the south where growth is so much more rapid, and other influences more favorable, it is comparatively easy. In a late letter from ROBERT HARWELL, of Mobile, long known for his skill in fruit culture at that place, he gives the following results of his practice.

"I propagate all my peaches by grafting, beginning in November or December, and if the stocks and grafts are good and the grafting well done, I do not lose over *five* in a hundred. I have my grafting done at the house, and plant the grafts like cabbage plants. I formerly budded, but found it very troublesome, and have entirely abandoned it."

National Ag. Society.

The annual meeting of this Society was held in Washington City, last week, commencing Feb. 28, the President, Col. WILDER, in the chair—who delivered the annual address, which is highly spoken of. After the appointment of the usual committees, the Society adjourned till evening, when an Address was delivered by G. W. P. CUSTIS, "On the Agricultural Character of Washington."

March 1.—After the reception of reports of committees, the following officers were elected:

President—MARSHALL P. WILDER, of Mass.

Vice Presidents—John D. Lang, Maine—H. F. French, New Hampshire—Fred. Holbrook. Vermont—B V. French, Massachusetts—Jos. J. Cooke, Rhode Island—John T. Andrew, Connecticut—Henry Wager, New-York—Isaac Cornell, New Jersey—Isaac Newton, Pennsylvania—C. H. Holcombe, Delaware—H. G. S. Key, Maryland—G. W. P. Custis, Virginia—Henry K. Burgwyn, North Carolina—James Hopkinson, South Carolina—D. A. Reese, Georgia—A. P. Hatch, Alabama—A. G. Brown, Mississippi—J. D. B. DeBow, Louisiana—General Whitfield, Kansas— J. J. Worthington, Ohio—B. Gratz, Kentucky—M. P. Gentry, Tenn.—Jos. Orr, Indiana—J. A. Kinnicutt, Illinois—Thos. Allen, Missouri—T. B. Flournoy, Arkansas—J. C. Holmes, Michigan—Jackson Morton, Florida—T. C. Rusk, Texas—J. W. Grimes, Iowa—B. C. Eastman, Wisconsin—J. M. Horner, California—Joseph H. Bradley, District of Columbia—S. M. Baird, New Mexico—H. H. Sibley, Minnesota—Joseph Lane, Oregon—J. L. Hayes, Utah—Mr. Giddings, Nebraska.

Executive Committee—John A. King, New-York—C. B. Calvert, Maryland—A. D. Elwyn, Pennsylvania—J. Wentworth, Illinois—B. Perley Poore, Massachusetts—A. Watts, Ohio—John Jones, Delaware.

Secretary—William S. King, Boston, Massachusetts.

Treasurer—B. B. French, Washington, D. C.

Fruit Grower's Society of Western New-York.

A convention of Fruit Growers of Western New-York, was held at Rochester on the 27th ultimo, for organizing an association, for the advancement of the science of pomology, and the art of fruit raising. Various counties were represented, from Cayuga to Erie; a constitution was adopted, and officers appointed, and a vigorous commencement made.

The meeting was organized by the appointment of H. P. NORTON, of Brockport, as chairman, and JOHN B. EATON, of Buffalo, as Secretary. A committee consisting of J. J. Thomas, of Macedon, P. Barry, of Rochester, Austin Pinney, of Clarkson, W. R. Coppock of Buffalo, and W. P. Townsend of Lockport, to present a constitution, offered one to the convention, which was adopted. This constitution prescribes that the twenty-two counties west of and including Oswego, Onondaga and Cortland, shall form the territory embraced by the society; that the payment of one dollar shall constitute annual membership, and ten dollars at one time, life membership; that there shall be a president, three vice presidents, a secretary and treasurer, an executive committee, standing committees on American and Foreign fruits, and a general fruit committee consisting of a general chairman and three members in each county represented.

The following officers of the society were elected:

President—JOHN J. THOMAS, of Macedon.

Vice Presidents—Lewis F. Allen, Buffalo; H. P. Norton, Brockport; E. W. Leavenworth, Syracuse.

Secretary—John B. Eaton, Buffalo.

Treasurer—Wm. P. Townsend, Lockport.

Col. Ware's Cotswold Sheep.

Having heard much of the celebrated flock of Improved Cotswold Sheep of Col. Ware, of Clarke Co., (Va.,) we asked him for some account of them. In connection with his answer which we publish below, he sent us some beautiful specimens of wool, and a printed circular, from which we learn that he has added to his flock for six or eight years past, by annual importations of the best to be procured in England, obtaining in several instances, animals which had received the first prizes at the exhibition of the Royal Ag. Society.

Luther Tucker, Esq.—In compliance with your request, I send you this notice of my sheep: I had a flock of good sheep, but found, besides the fleece, each sheep at 4 years old on grass, would not command more than $2.50—the best, fed on grain in the winter, would bring over $4.00. To supply a butcher each year a lot of fat sheep of a farmer's own raising, would require him to keep 4 lots on hand to sell one, the fleece but little more than paying for the keep. To rely upon a fleece *alone* for profit was too insignificant a matter. At the highest price per lb. given in the U. S., it would require too many sheep to make a small sum of money. Not being satisfied with this state of things, I determined to purchase some of the large mutton sheep of England, the improved Cotswold, and try what could be done with them; and as independent of the pride, I believe it the true policy to have the best as it soonest returns the outlay, I imported, I do import each year winners of the high prizes of the Royal Ag. Society of England. If they beat England, I must surely have the purest bred and best.

I soon found, after putting 3 crosses of my imported bucks on my ordinary flock, that the fleece greatly increased in weight, and sold for as much per lb. as the fleece of the ordinary sheep, and I sold the mutton from these crosses (not thorough bred) without difficulty, the fall after one year old, for $10 each on the farm, so that I sell out clean every year, keeping none over the winter, but the breeding ewes and the lambs of the same spring.

You will see from my circular sent you by remarks of others about my sheep, that I have sold some muttons for $35 and $25 each, and you will see from the no. of lbs. of washed wool to the fleece, that we make more money to the fleece than any other breed.—I send you samples of wool—the longest is from a fleece of 18¾lb.—the next 17½—the next 16—the next 14, the growth being from the shearing of 1853 to that of 1854. All is not so long. I have had it longer. I always wash my sheep before shearing, but admit that the flock from raising lambs and losing some wool, average only 6 lbs. washed. We never sell under 30 cents per lb. and sometimes get 40, and you will see we still make as much money or more to the fleece than any other breed. Selling out clean every year enables us to keep all our sheep of the most profitable size—ewes that bring us lambs every year (and being prolific) mostly bring twins and wool too. We are never overstocked. The butcher is always ready for the overplus

I consider the improved Cotswold the most profitable sheep for general farming purposes (wool and mutton) for while I formerly sold *one* mutton 4 years old for $2.50 on grass, and $4 00 on grain in the winter, in the same time, besides getting more money for fleece, I sell 4 of this breed for $40; and that profit is in that proportion, allowing that each bring the same no. of lambs,* for I never sell one of them the fall after one year old for less than $10 each, part bred at that—butchers have offered $6 and $8 cash for some *lambs* and been refused. The thorough bred are too much in demand, and too costly to alter.

Seeing these results, naturally the farmers in this section have occasionally procured of me rams, and improved their flock, until this little county of Clarke that I live in, has now a reputation for mutton probably unequalled by any *State* in the Union. Is it not the true policy of the farmer to keep that breed which will produce the greatest amount of money from the smallest number? It is not unusual in this county, for a flock of from 40 to 50 ewes, part bred, to yield in mutton and wool each year, from $500 to $650.

I know it is a theory with some that these large sheep require more food to sustain them than the small breed. Some say double. My experience is the reverse. *I* cannot, nor can any person else, form any correct idea of the fact on grass, but nearly *correct* conclusions *can* be arrived at when you feed them on grain for the butcher. In this way I have tested it. I have, beginning at the same time, fed a lot of ordinary sheep 4 years old, the pick of 700 good ones, and a lot of *yearling* Cotswolds, the same number in adjoining fields, the most indifferent field to the Cotswold—the same amount fed at the same time to each lot. The former always eat up clean, and wanted more; the latter always left some, and were sold January 1st, rolling fat, for $10 each; the former not until some time in March; then with difficulty and grumbling by the butcher for $4.00 each, having the advantage of the others also in age. I have come to the conclusion that at least 2 (I believe 3) Cotswold, *even yearlings*, can be fattened well for the butcher on the grain it takes to fatten one of the others of any age. The Cotswolds have great propensity to take on fat, are always mutton. Indeed you cannot lay the fat on any other, as you can on them. It is their nature. All others travel a great deal, and ramble off their food. The Cotswolds are heavy, sluggish sheep, fill themselves and lay down and ruminate like cattle, and thus convert their food into fat, instead of rambling it off, and it is to this sluggish quality, I ascribe the fact that I have never lost a thoro' bred by dogs: they do not jump up and run when any thing comes into the field, thus tempting dogs to the chase. They are large sheep; have been brought in England, by full treatment at 3 years old, thorough bred, to *nett* for the butcher *over* 300 *lbs.*—Can any other breed of sheep give from $2 to $5 in fleece in the spring he is one year old, and in the fall of the same year without fail, $10 as a mutton, and draw butchers hundreds of miles to get them at that, as they do here every year? can *cattle* do so? and they have no fleece. Can they give $10 even the fall after one year old? and they consume infinitely more per head. Then what animal can be so profitable to the farmer as the Cotswold sheep for general farming purposes, returning its outlay with such certainty, so speedy and so unceasingly? Josiah Wm. Ware. *Near Berryville, Clarke Co: Virginia.*

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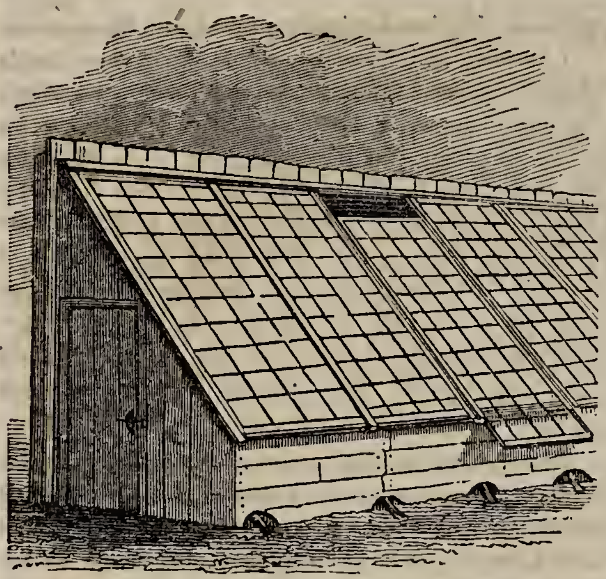
* "11 ewes brought 28 living lambs—5 of the 11 brought 16 lambs—one of the 5 brought 4—the other 4 brought 3 lambs each."



Cheap Vineries.

The real merits of the foreign grape as a delicious fruit, are, even at the present day, but very little known by the great mass of the people of this country. Any one who has charge of a vinery, can testify as to the truth of this, by the questions frequently put concerning them,—numbers of even the well-to-do having never tasted them. And as the old adage runs, "the proof of the pudding is in the eating of it," so they are not likely to fully comprehend their value, till such times as they can taste for themselves.

It has been found by numberless experiments, that the growing the foreign grape out-doors, is almost a complete failure in this country, principally from the ravages of mildew, but undoubtedly partly owing to the severity of the winter, materially weakening the vitality of the vine, by which it becomes susceptible to the ravages of disease and insects. While this is true, no country can produce finer fruit than is done with the assistance of glass only.

In a back number of this paper, a vinery has been given on an extensive scale, suitable to the means of the opulent, where the services of a competent person can be kept to look after it. The one offered here is but a small contrivance in comparison, within the means of all, and can be attended to during the leisure hours of the man of business.

As will be observed by a reference to the illustration, the back and ends are nothing more than upright boards, secured to posts and rails, similar to a fence. It would be better if the outside was clapboarded, and the space between filled with tan or sawdust. In front, the boards are placed horizontally. Where there is any building with a south or south-east aspect, the cost would be still less, as a plate could be fastened to this for the rafters to rest on,—the ends, front, and sash, being all that would be required. The dimensions might be of any size from six feet wide upwards; but where the width is less than ten feet, it is advisable to train the vines horizontally lengthwise of the house, as they would then have room for extension of the branches, a desirable feature in circumscribed limits.

Between the two extremes, the following dimensions would be a snug little vinery for the farmer, or amateur gardener. Height of back, 10 feet; front, 3 feet; length, 25 feet; width, 12 feet. The rafters should be about 3 feet 3 inches apart, including the rafters. A vine should be planted to run up each of these rafters; and a row can be planted at the back to cover the back wall. In this case the vinery border will have to be made inside of the house as well as out. Except the sash, which would have to be made by a carpenter or sash maker, (except there are any spare hot-bed lights which could easily be made to answer for the vinery,) the whole of this house could be constructed by the farmer or a rough carpenter, of any lumber at hand.

We will give some instructions on the formation of the vine border, in our next. EDGAR SANDERS.

Barn Cellars for Manure.

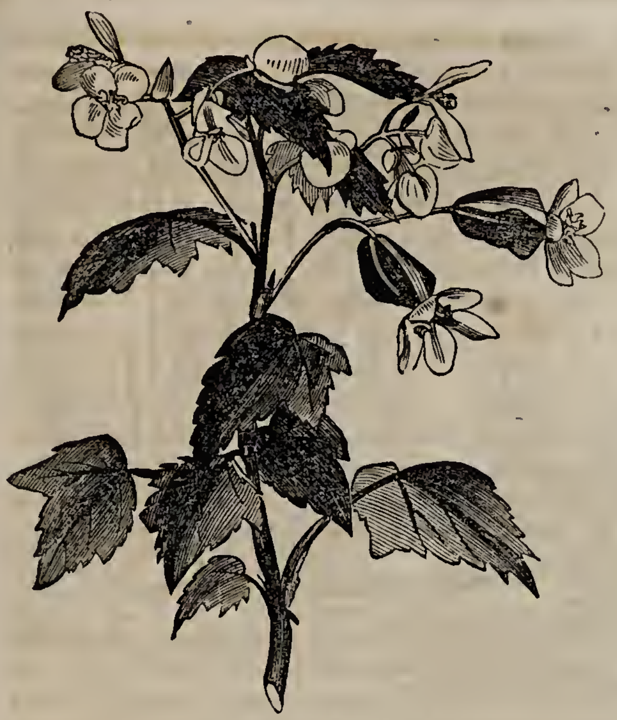
To those of my brother farmers who are not properly located to have a cellar under their barns, or who are waiting until they are better able to afford the luxury of having one, I would just give them an account of the way they may temporarily enjoy *some* of its benefits; merely adding, that the advice comes cheap, and they are not obliged to follow it.

It is taken for granted that you have a good, commodious, open cow-shed, and that your cattle are mostly stabled every day. When you clear your stables, instead of making an unsightly pile at your back window, or about your stable door, have a wheelbarrow ready in the stable; throw your manure into that, and take it and empty in your cow-shed. By spreading it evenly, and using litter, the shed may be kept in good order for cattle to lie in; and you have the satisfaction of knowing that one-half of the good qualities of the manure are not wasted by the washing rains, or the heat of the sun. As regards the labor, my own experience teaches me that it is not any more than to throw it out of the door, and then be obliged to shovel it away daily to keep the entrance clear. WM. J. PETTEE. *Lakeville, Conn., Jan.* 19, 1855.

Sheep Manure on Meadows.

The following method of manuring meadow land with sheep, communicated to me by the Hon. A. D. BALDWIN of Greenfield Hill, Conn., seemed so feasible, that I send it to you for the benefit of others who are, like myself, novices in sheep husbandry.

Sheep manure is No. 1, for grass lands, which can easily and effectually be manured by building light movable sheds, open on one end; the sills to be made like sled runners on the ends; put them in the lots to be manured, and when the sheep occupy it for a lodging place long enough to give the ground in and around it a good coat of manure, hitch a team to it, and remove it two or three rods, and so on. When you get across the lot, hitch on to the other end and draw it back over a new strip of land, and so on until the whole lot is manured in this way. The land will show the effect of the top dressing for many years. S. *Plymouth, Ct.*



The Begonia Parvifolia,

Or *Small Leaved Elephant's Ear*, is one of the prettiest of this singular family of plants. It has the good feature of continuing a very long time in flower, commencing early in the spring, and continuing throughout the summer and autumn. Its flowers are blush-white, and produced in the greatest profusion. It has small, angulated oblique leaves, and is a native of the Cape of Good Hope. It is sometimes called *B. floribunda*, and *B. semperflorens*. It is a bulbous kind, and after flowering requires to be kept nearly dry till it commences growing again. It should be liberally but not over potted, using plenty of drainage, while it is growing; using for soil turfy loam, and peat, equal parts, well mixed with white sand. It strikes readily from cuttings, which will commence flowering immediately after they are struck. It will succeed in a green-house, but does better in a hot-house. Edgar Sanders.

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Remedy for the Black Knot.

In conversing with a friend a few days since, he informed me that he had been successful in removing the black excrescences that have proved so injurious to plum trees, as follows: Saturate the knot with spirits of turpentine, and in time it will dry up and heal over. He thinks the disease is caused by an insect, which the spirits of turpentine destroys, and thereby remedies the evil. He had recommended it to his neighbors, and in all cases it has proved alike beneficial. In looking over some of the back volumes of the Cultivator, I find the general remedy recommended, is excision, and knowing that this sometimes proves injurious to the tree, I thought I would send you this remedy,—so simple and yet so beneficial,—for publication, not doubting but that I should get some ideas in return from your correspondents.

I see the cherry is affected, in some sections of the country, with the black knot, and I presume the above remedy will prove alike beneficial to them. D. Griffen. *Albany, N. Y., Feb.* 3, 1855.

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Manuring with Sheep.

Messrs. Editors—The experiment of Mr. Baldwin of Conn., in the application of sheep manure to meadows, as detailed in your paper No. 110, page 87, brings to mind the ways of my neighbor R. S. Fay, of Lyons, Mass., who keeps a flock of 500 superior sheep. He uses a moveable fence made of wire, costing $1.50 a rod, which he places around about 40 poles of land, and confines his flock, until their droppings have sufficiently fertilized the space enclosed. The fence is then moved to a space next adjoining, and in this way he fertilizes at least *ten acres* in the season. I saw his fields thus treated, the last season; and notwithstanding the general drought around, his crop over his meadow was quite luxuriant, averaging from two to three tons of superior grass to the acre. The effect is probably nearly the same, as that produced by Mr. B.'s sheds, but the machinery is much less cumberous, and the applications more extended. The fence used by Mr. F. can be easily rolled up, and housed, and when thus used, it continues without depreciation in value for a long time. It was the opinion of Mr. Fay, that his crop was doubled by the use thus made of his sheep. He is a man of discriminating observation, who makes no assertions beyond his knowledge. I have rarely seen an experiment, where the advantages were greater in proportion to the cost. Very truly yours. J. W. P. *Feb.* 9, 1855.

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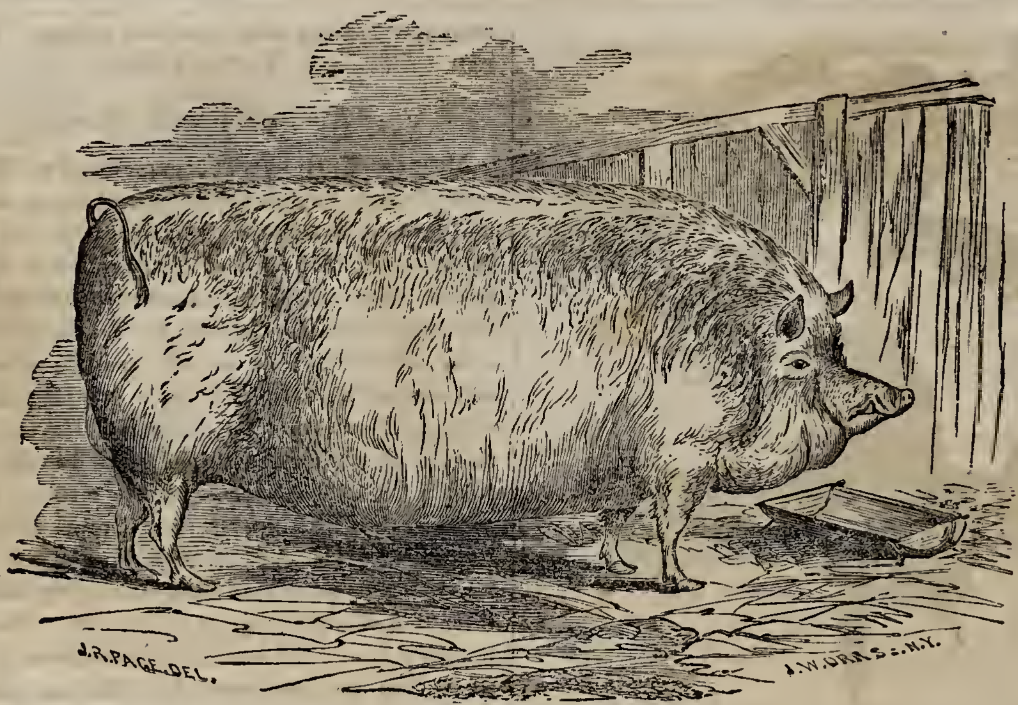
Manuring Meadows.

Seeing an article in a late number of the *Country Gentleman*, on the renewing old meadows, when to manure, &c., called to mind an inquiry some years since in the N. E. Farmer, on similar subjects, to which I replied in the language of the Poet:

> " Would you know the best time to laugh and to sing.
> 'Tis *summer*, 'tis *autumn*, 'tis *winter*, 'tis *spring*."

And again in language of a higher authority—" In the morning sow thy seed, and in the evening withhold not thine hand, for thou knowest not, whether this or that shall prosper, or whether both shall be alike good." After more than a half century's experience in manuring meadow lands, and seeing so much depend upon the timely coming of rain, I have adopted the practice of putting manure upon meadow or mowing land, at any and all seasons of the year from the time one crop is taken off, till the grass is so large the following spring, as apparently to be injured by the operation. I have known fine manure spread on in the spring after the grass was up two or three inches, and do admirably, *rain coming* soon; and I have known coarse manure put on early, and followed by a dry summer, and the crop not apparently benefited at all, but the next season it was of great benefit. I have put on coarse manure immediately after taking off a crop of hay, and rain coming soon, the grass shortly resembled a field of rye when 5 or 6 inches high, so that I believe it a safe rule to put manure on to land at any time when the standing or growing crop will not be injured by it, and it will be like broad cast upon the waters—return, after *many* days, if not *few*, will be very certain. A Reader of the Co. Gent.


J.R.PAGE.DEL.
J.W.ORR.S.C.N.Y.

Suffolk Boar "Lord Wenlock,"

Winner of the 1st Prize in his class at the N. Y. State Show in 1853, and the 2d Prize at the N. Y. State Show in 1854—the property of L. G. MORRIS. Mount Fordham, by whom he was selected and imported.

Rich Milk.

MESSRS. EDITORS—You have often heard me express the opinion that no other than Alderney cows would compare with the Ayrshire in richness of milk; and yet I am ashamed to say that I never put the latter to the test of the scales until last week. I then weighed nine pounds five ounces of very beautiful yellow butter, made from 118 lbs. of milk, taken in during the three previous days. In another trial since made, 68 lbs. milk yielded 6 lbs. 2 oz. butter. The cream was taken off in the ordinary way, and churned without the milk. The feed of the cows was good hay only.

My attention was now called to the subject, by reading an article in one of your former nos., in which it is stated that 20½ lbs. milk in autumn is given as the average weight necessary to produce a pound of butter, while in the two trials given above, the product of butter was one pound to 12 lbs. of milk; and the butter has a richness of color and taste, that I have never noticed in any other than Alderney, at this season. E. P. PRENTICE. *Mount Hope*, *Feb.* 24, 1855.

We are much obliged to Mr. PRENTICE for the above, as also for some beautiful samples of the rich yellow butter produced by his Ayrshires. The product is extraordinary, and we shall be glad to learn from those who keep Alderney cows, whether they can equal it.

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SALE OF IMPORTED JACKS.—The Jacks and Jennets imported from Spain by the Kentucky Stock Importing Company were recently sold at Georgetown, Ky., at public auction. Eleven Jacks sold for $7.901, varying from $350 to $1.550 each. Four Jennets sold for $2,689. These prices are said to be remunerative.

Feeding Straw and Hay.

The present scarcity of feed for stock, has prompted me to communicate my experience in feeding straw. I find many people think cattle will not eat straw in connection with hay, and consequently feed all straw, or all hay, which, I think, is wrong, because in feeding all straw, the stock must be losing, when, if they would feed hay once a day, and straw the rest of the time, their stock would do quite as well as if fed all hay. My plan of feeding, which I have followed for several years, is this. In the morning about 6 o'clock, (and by the way, regularity is very essential in feeding any thing,) I feed them corn stalks as many as they will eat clean; then at noon, feed them straw in the yard, and then fill their manger with straw, which they pick over during the night, and what is left, is spread under them for litter. This routine I follow through the winter, using hay in the place of the stalks when they are gone. The result is, my stock comes out in the spring in as good condition as those who had all hay. My cows I feed a little meal from the middle of March The secret, in my opinion, is in the regular feeding F. F. S. *Moravia*, *N. Y.*

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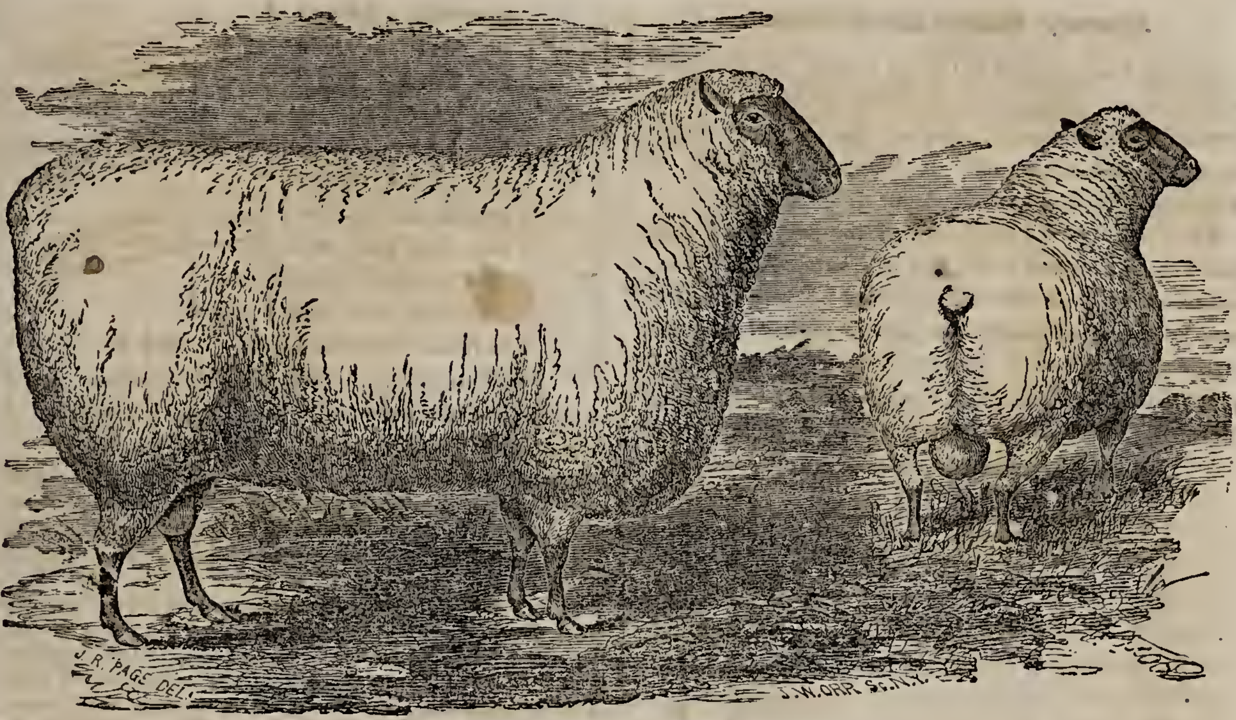
CRUSHING OATS FOR HORSES.—It has been said that the stomach of a horse would digest oats when swallowed whole, or without mastication, and that therefore it was unnecessary to crush them. The veterinary surgeon connected with the immense establishment of BARCLAY & PERKINS, the great London brewers, in order to test this point, gave some horses unbruised oats made into balls, when he found that nearly half of the grain was voided quite sound and even vegetated when put into the ground.


J. R. PAGE DEL.
S. W. ORR. SC. N.Y.

South Down Ram "Young York,"

IN TWO POSITIONS.

☞ Our readers, we are confident, will be gratified by the exhibition in the above portrait, of another of Mr. MORRIS' beautiful prize animals. "Young York" was imported by Messrs. MORRIS and BECAR, but is now owned by L. G. MORRIS, Mount Fordham, and won the first prize at the New-York State Show in 1854.

Brookfield Town Ag. Society.

At the annual meeting of the Brookfield Agricultural Society, the following persons were elected officers:

President—STEPHEN HOXIE.
V. Presidents—Warren DeLancey and Joseph Lamb.
Secretary—Allen Green.
Treasurer—Luke Hoxie.
Ex. Committee—Heman A. Brown, A. L. Saunders, Morgan L. Brown, Samuel H Burdick, C. Langworthy, Andrew Babcock, Jared Cheesbro, Peleg Greene, Thomas R. Gorton.

The Society found its funds to stand as follows:

Balance from last year,..................	$256.05
Interest received on same,..........	16.30
Received for Memberships and Tickets,........	431 02
Donation from J. Wilkenson, Esq.,his premium,	.50
" " Mrs. W. Scott, her premium,....	.38
" E. King, M. D. Books.............	10 00
" Dennis Hardin, Esq. Books,.......	10.00
31 Vols Books from last year,................	31 00
	$755.25
Expense of Fair and Premiums,..............	$402.47
Balance on hand,............................	$352 78

The Society voted to enlarge their Tent to 200 feet long by 40 feet wide; this seeming to be a necessary size to accommodate the increasing patrons of our home show; the good effects of which are to be seen not only at our exhibition, but upon very many farms in our town.

The briars and elders are giving place to more valuable crops—sleeker and better proportioned kine graze the fields—more spirited horses champ the bit and paw the earth of our streets—larger and more fat porkers grunt in the pen—richer cheese lie on the shelves, and more golden butter tempts the palate of the lovers of good living. Add to this the good feelings and honest pride begotton throughout our town, and it pays good interest. A. L. SAUNDERS.

Barn with Basement or Cellar.

MESSRS. EDITORS—I send you a short description of a barn, in answer to an inquiry in the Country Gentleman of Feb. 1st, which I think will answer the purpose, as there are two within a few miles of me which are much approved. They are about 40 feet in length, 30 feet wide, and 22 feet high from the underground room, whose walls are 7 feet. The bays extend below the threshing floor 8 feet. Under the floor is the granary, with bins for the different kinds of grain, which are filled from the upper floor through small openings; the cleaning mill being set over these, the grain runs into the bins below, saving much labor. The hay is passed down to the stables below, through doors, into perpendicular troughs about three feet square, two on each side of the floor.

The stables are made in from the outside about ten feet, affording a good unenclosed shelter for the stock in the yard.

The threshing floor is ascended from the underground part, by two flights of stairs, the first to the grain room, the other to the upper floor.

The stables are parted by gates made the width of the stable, to swing both ways. The stables are cleaned out by a hand cart. The great advantage of such a barn is the easy descent of all the contents above.

When the hay is below the floor, the troughs are filled through doors which open into the bays. J. B. H. *Newtown*, *Feb.* 9, 1855.

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E. J. MAXON of West Genesee, Alleghany Co., N. Y. states in the *Rural New Yorker*, that he has found from an experience of fifteen years, that currier's oil is a sure cure for foul in the feet.

Harvey Wing's Dairy Room.

During a recent visit to Otsego county, we examined a dairy-room belonging to Harvey Wing, of Morris, combining in an unusual degree the necessary requisites for successful butter making, a description of which may prove valuable to our dairy readers.

The room, (on the north side of the house) is sixteen feet long by ten feet wide, and is situated directly over a cold cellar, from which the air may be drawn at pleasure by means of ventilators, for the perfect regulation of the temperature of the room. The places of these ventilators, (between the room and the cellar,) are shown in the plan Fig. 1, by the dotted lines on each side of the room, and they consist each of a single slit or opening, under the shelves, running the whole length of the room, and closed by a board with hinges precisely like a trap-door. These slits are only six inches wide ; it is believed that more perfect ventilation would be afforded, and a more complete control of the temperature attained, if they were nine inches or a foot wide.

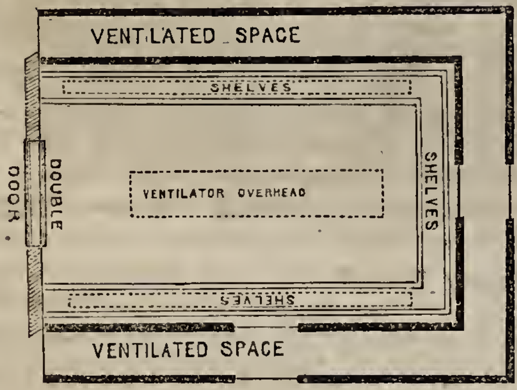

Fig. 1.

Overhead, there is another ventilator, also closed by a similar trap-door, 6 or 7 feet long and a foot wide, opening upwards. An elevating stick with holes or notches, enables the attendant to raise them to any desired degree. When the upper ventilator is opened, the heated air of the room passes out by reason of its specific levity, and the cold air from the cellar, immediately rises to supply the space,—in the same way that water rises to fill a pump when the air is drawn out above.

A ventilated space of one or two feet surrounds the room, and prevents the heating so often resulting from confined air in the adjacent walls. This ventilation is only partially effected in the instance before us, a temporary board partition being made to form the outer wall on the exterior side of the room—we have consequently figured in one plan, what it is *intended* to be in this respect, rather than what we found it in actual practice.

The room is entered by a double door, the outer being a tight one to exclude hot summer air, and the inner, of lattice or wire-gauze, to admit cool night air when necessary.

The shelves are not flat boards, as usually constructed, but are formed of two narrow strips of inch board on edge, on which the pans rest, thus admitting a free circulation of air on every side. The mode of constructing these shelves is shown in figs. 2 and 3. Fig. 2 exhibits the upright board support at the ends of the shelves and at intervals of five feet between; the notches being made on each side to receive the horizontal strips which form the shelves. Fig 3 shows a portion of the shelves completed. A space is left between them for the side window.

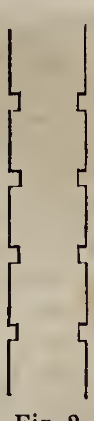

Fig. 2.

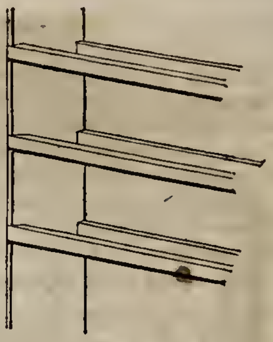

Fig. 3.

The strips forming the shelves are 9 inches apart outside for each, and each strip one by two inches, set on edge. The shelves are eight inches apart, or with 6 inches of clear space between them for the reception of the pans.

It is found of great importance not to fill the pans to more than one-half their capacity—one third is still better. The dairy, consisting of about 15 cows, requires nearly 200 twelve-quart pans at the season when milk is most abundant, the rising of the cream continuing longer than is common, on account of the perfect control of temperature which is secured by the ventilation of the room. There are eleven shelves on three sides, with the exception of a space for windows, and they are capable of holding 250 pans if required.

As a proof of the superiority of this dairy room, nearly twice as much butter is made here, as at the dairy of a neighbor with an equal number of cows, but with only ordinary arrangements.

H. Wing uses the thermometer churn. He formerly employed a large dasher churn, which was worked with great labor. When he first procured the thermometer churn, he was assured by the vender, as one of the conditions of purchase, that it would save one pound of butter in ten. He took it on trial, and performed the experiment three times, by dipping equal quantities of freshly stirred cream alternately into this and into the dasher churn. The thermometer churn retarded the production of butter by the more perfect regulation of temperature, and at the three different churnings, gave uniformly about 20 lbs. of butter for 18 lbs. afforded by an equal quantity of cream in the dasher churn.

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Cultivation of Rape.

Mr. Bartlett also states in the same paper, that he has tried rape, and thinks that "it will prove a most valuable plant for feeding milch cows during our unusually dry autumns." We do not see why it might not. Mr. B. says :

This plant is extensively cultivated in various parts of Europe, for the sake of the seed, from which oil is extracted by grinding and pressure, and is used for the purpose of illumination. It is extensively used in England for the succulent food which its thick, fleshy stem and leaves supply to sheep and cows when other fodder is scarce. Large quantities of this feed are annually imported into the United States, at an expense of $3 or $4 per bushel, for feeding cage-birds.

A quantity of rape seed has been imported by the Light House Board, with a view of testing the practicability of cultivating the plant in this country for the purpose of manufacturing oil. The seed is distributed in small packages from the Patent Office, among the farmers, who are requested to give a fair trial both in spring and autumn. We presume there is yet a quantity at the Patent Office, and any one wishing to experiment with it, could procure seed by writing to one of our Representatives in Congress.

Hardy Pears.

Messrs. Editors—Allow me to inquire through the columns of the Country Gentleman, what varieties of Pears would be likely to prove hardiest, and best adapted to the cold latitude of Northern New-York. Also whether Dwarfs upon Quince Stocks, are as hardy as those upon the Pear, and as well adapted to cold latitudes. By answering the above inquiries you will much oblige A Northerner. *Lowville, N. Y.*

Most varieties of the pear will endure a severe degree of cold, but we would name among those promising the best success, Osband's Summer, Tyson, Seckel, Flemish Beauty, Virgalieu, Vicar of Winkfield, Duchess Angouleme, Napoleon, Oswego Beurre, Onondaga, and others. Dwarfs, so far as our observations go, are as hardy as standards. Some years ago, we knew many young standards destroyed by a cold and wet winter, when the dwarfs entirely escaped; while more recently we have many cases in some parts of the country, where standards have not suffered nearly so much as dwarfs. On the whole there is probably but little difference in this respect.

Transplanting Large Trees.

Messrs. Editors—Can you not give in your paper, directions for transplanting *large* forest trees, such as ash, maple, elm, &c. The Western people are behind the age in their mode of beautifying lawns, and directions for proceeding properly in the above matter would do us good. I wish to know how to transplant a tree of some size and *make it grow*. W. W. B. *Keokuk, Iowa.*

The great secret of success in transplanting all trees, is to secure as large a portion of the roots as practicable—other requisites, such as security from drying, mutilation, &c., and filling evenly and compactly with fine earth, among the well spread fibres, being observed.

Some trees, as the hickory, send down long tap roots, and consequently a hole almost like a *well*, must be dug in getting them out. Others like the elm and beech, spread widely, and such must be secured by digging a broad circle. Trees which readily throw out new shoots in replacing lopped branches, (such as the sugar maple,) may have large portions of the top removed, to balance any necessary cutting off of the roots; others, like the elm, which do not readily reproduce branches, should be more sparingly pruned, and more care be taken to secure a large circle of roots. This will also help to brace against the wind; the swaying of the trunks of transplanted trees being a a most fruitful cause of failure.

Trees of much size may be safely transplanted by adopting the following practice. One, two, or three years before removing, dig a trench all around the tree, so as to cut off all the roots at a proper distance from it—this will cause numerous shorter ones to spring from the larger roots, and when the tree is removed, a much fuller mass of fibres within the dug circle will be obtained and but little check given to the tree in consequence. The safety will be increased if this mass of fibres is removed with a *ball of earth*. If the trench has been dug or renewed and the hole dug for the tree, the previous autumn, the ball of earth and tree may be carried on a sled in winter in a frozen state. It should be remembered to make the hole considerably larger, say one foot all round, than the ball, and fill this space with rich soil. Remember also to mulch the trees before midsummer.

With these directions, fully and faithfully performed, the most difficult trees may be safely removed. It may be proper to add, that trees from *open ground* will succeed by far the best.

The Best Hardy Grapes.

Messrs. Editors—I wish you would favor me through *the Cultivator*, with some information in the culture of grapes—which is the best variety? Where can they be obtained? What is the manner of planting—and what time should it be done? And what would be the probable cost of starting an acre? A Subscriber. *Montgomery Co, N. Y., Feb.* 14, 1855.

The best hardy grape for this state north of 42°, is the Isabella,—provided it can be trained on the south side of a wall or building or other warm place and be kept properly summer pruned. Judicious pruning will hasten the ripening at least one or two weeks earlier than by neglected pruning. The *Clinton* is a very hardy free-growing vine, but the grape is rather small, and of second-rate quality. The *Diana* is about two weeks earlier than the Isabella, hardy, as large as the Clinton, and far better in quality. The *Concord*, a new sort, is also very hardy, a free grower, bearing very large and exceedingly showy bunches, of good quality, but not equal in flavor to the Isabella and Diana. It is said to be even earlier than the Diana, which we question, but it will undoubtedly prove a very valuable sort for all the northern portions of the Union, especially for marketing. The *Elsinburg* is an excellent hardy grape, but quite small.

For vineyard planting, where each vine is trained to a stake, 1500 to 2000 vines are required for an acre. A fewer number is needed for trellis training. The Isabella and Clinton are usually sold at $12 or $15 per hundred, and probably lower by the thousand; the Diana for about one dollar each, and the Concord at three dollars—too high for vineyard planting at present. All may be had of most of the principal nurserymen. Dr. R. T. Underhill, of Croton Point, N. Y. deals largely in Isabella vines, and furnishes minute practical directions to purchasers.

The soil should be deep, loose, and very rich—properly subsoiling, and manuring by very thorough intermixture, would cost fifty to a hundred dollars per acre. The vines are planted in spring. The pruning and management we have already described in an article published a few weeks since.

Fall of Black Snow.—The *Ohio Farmer* contains a communication from Prof. Fairchild, of Oberlin, Ohio, stating that, on Feb. 7, they had in that region a fall of dark colored or sooty snow. The crystals were in the form of dense icy pellets, about the twentieth of an inch in diameter. It fell to the depth of nearly an inch and when melted it yielded about a half inch of water. The snow had a distinct smoky taste, and on filtering it through paper a dark sooty substance was obtained.

Inquiries and Answers.

C. W. Sanford.—We would have written you on the subject of your inquiry, had you given your address. Mr H. L. Emery can furnish the things you require.

☞ We are frequently greatly annoyed by the failure of our correspondents to give their post-office address. Whoever writes to a publisher, should head his letter with the name of his post-office, and the state in which it is located; and it would be better in most instances to add the county; but instead of this we frequently receive letters dated "Cottage Farm," or "Washington county," and more frequently without any date, and sometimes without signature. For instance, a person recently sent us an order for papers without any date to his letter; and it was not until he wrote a *third* time, that he furnished his post-office address. We have now a letter before us, which reads as follows:

"For the enclosed money send one copy of the Illustrated Annual Register."

This, so far as it goes, is a model letter—brief, and to the point; yet lacking as it did, the writer's signature and post-office, it entirely failed of its object.

Guano for Spring Wheat.—*Wm. J. Pettee, Lakeville, Ct.* Sow it at the time of sowing the seed, and harrow it in thoroughly. If all the lumps are broken, and it is sown broadcast in this way, it does not injure the seed. From 200 to 400 lbs. per acre is the proper quantity.

Geddes Harrow—Will some of your correspondents give me the dimensions of the Geddes Harrow, viz. length of the side pieces and the angle at which they are joined to the drawing bar. I want to have one made. L. E. M.

Top Dressing—*Wm. E. Wheeler, Warren, N. Y.* We know of nothing better than good Peruvian guano, sown either in the fall, or as early in the spring as possible. See article on this subject in the last number of the Country Gentleman.

Warts on the Head of a Steer.—A Subscriber has a steer that has several warts on his head, and would be glad if some of our experienced correspondents would inform him how to cure it.

Field Rollers.—*G. F. Saxton.* We do not know of a good field roller for sale that we can recommend to you. Farmers usually make them themselves. We shall be obliged if some of our correspondents will give a good method of making them.

P. S., Valley Falls.—For the general purposes of the American farmer, we should prefer Johnson's Encyclopedia to the Book of the Farm. Schenck's Gardener's Text Book, would probably suit you, for a work on the kitchen garden. We thank you for the extract you sent, but we have little room at present for extracts from books.

What Guano do you Use?—According to the analysis of Dr. Anderson, chemist to the Highland and Agricultural Society of Scotland, while the Anagamas guano, contains more than 20 per cent of ammonia the Saldanha Bay contains less than 2 per cent. Then, when the kind friends of agriculture wish to enlighten us about the effects of guano, is it not important that they should *always* tell us what kind of guano they used to produce the effects which they describe? Asa M. Holt. *E. Haddam, Conn.*

In giving the results of experiments with guano, it is, as Mr. Holt observes, very important that the kind of guano used should be stated; but we are far from having all the data necessary when we are told that Peruvian, Mexican or Saldanha Bay guano is used, for it is well known that *genuine* Peruvian guano differs very materially in composition. We have known one cargo of Peruvian guano to contain *as much again* ammonia as another,—and their value is unquestionably in proportion to the ammonia they contain,—and yet they were sold at the same price. It is seldom that any two cargoes are alike in the percentage of ammonia, and we have known the top portion of a cargo to contain 18 per cent and the lower portion of the same cargo only 16 per cent. These cargose were imported into London by Anthony Gibbs & Sons, and there can be no doubt each of them was the genuine article. How important is it, therefore, not only to deal with honest men, not only to get the genuine article, but to be sure that the article is of the first quality. There is no better practical way of doing this than for the dealers to have the cargoes analysed before purchasing, and then warrant them to contain a certain amount of ammonia. For the past few years guano has been so scarce that dealers were glad to take anything they could get that was called and looked like Peruvian guano, but now there is a large quantity on hand, they should be more particular, and buy only such as analysis shows to be good. This country is destined to use more guano than any other, and it would be well for dealers to look to this matter in time, and build up a reputation for selling only the best article.

Culture of Cranberries and Willows.—I will be very much obliged to you or some of your subscribers, for information in regard to the best crop for a swampy piece of ground. I have been advised to put on cranberries or willows. Where can I get the seed or bushes, or which is best, and how are they cultivated and fitted for market; what quantity of either can be raised to the acre, and what is the expense, &c.

Willows grow very thick on the margin, and, where I have cultivated, potatoes and oats do very well. W. J. Hayward. *Schroon Lake, Essex Co., N. Y.*

Will some of our subscribers answer the above?

Analysis of Fruit.—*R. H., Mobile.* Do you wish for analysis of the trees, or simply of the fruit? The leaves, the bark, the old wood, the young wood, and the fruit, all differ materially in chemical composition—that is to say, *while all contain the same elements*, these elements are found in different proportions in different species of trees, and in the different parts of the same tree. Many appear to suppose that potash is found in one tree, and lime in another, soda in a third, and phosphates in a fourth, &c., and that these substances would therefore be specific manures for the trees in which they were found. Others, while they admit that all trees contain the same elements, think that, if potash is found in greater proportion in one tree than in another, that tree will require a soil or manure in which potash exists in larger quantity than in the soil or manure best adapted to the growth of the tree containing little potash. And so of lime, phosphates, &c. We cannot at this time go into explanations on this subject, but we would say that, as far as we can learn, *there is not one single well established fact that confirms this deduction*, while there are many which tend to show its unsoundness.

Turnips.—What 2 or 3 varieties of *early* Turnip would you recommend, and what time are they fit for the table?

What variety of *yellow* Turnips would be best to sprinkle among corn at the last hoeing, say about the 1st July, and what yellow kinds for August sowing?

Can the seeds of Ruta Baga be obtained, the produce of which will not be liable to be infected by the rot? Mine have been so infected for the last three years; seed obtained at the seed-stores, Hartford. A Subscriber. *Watertown, Ct.*

The earliest turnips, so far as we know, are the *Early White Dutch* or *Strap-leaved*, and the *Early Red-Top*, the latter only differing from the former in the red or purple skin above ground. Both are distinguished for their small narrow leaves. Under the most favorable circumstances, and with good culture, roots fit for the table may be produced in six weeks from sowing. The *Early Yellow Dutch*, the *Yellow Stone* and *Malta*, are much esteemed by some, but our experience is not sufficient to enable us to pronounce on their relative merits.

We hope some of our correspondents may be able to answer the rest of "a subscriber's" inquiries.

Hedge Plants.—*N. J B., Ky., and G. D., Carlisle N. Y.* It has been *proposed* to raise osage orange plants by cuttings, but we have never known it to succeed well; and by cuttings of the roots, but this proves only partially successful. It is much the best and cheapest to raise from seed. The same remark will apply to the English hawthorn. We cannot recommend the latter for American Hedges; for although we have examples of old and successful hedges in many intances, yet as it has suddenly failed from the attacks of insects in many others, it cannot be safely relied on. Seeds of the osage plant may be had at the principal city agricultural seed stores.

Fertilizing Value of Clay.—I would like to ask you how much value you put upon clay applied to very dry sandy ground. Will it pay to draw it? M. S. K. *Chicopee, Mass.*

The value of clay depends very much on its composition. If the clay contains considerable lime, a little phosphoric and sulphuric acids, silicates of potash and soda, &c., it would most probably *pay well* to draw it on to dry sandy ground. We should have doubts, however, whether ordinary clay drawn on to sands, simply for mechanical purposes, would prove profitable in this country. With a rich marl, containing considerable clay, the case is very different, since you get not only the mechanical effect desired, but also a large amount of valuable chemical fertilizers.

Broom Corn. *A Subscriber, Madison, N. Y.*—There can be no question that "the soil and climate of this country" are well adapted to the cultivation of broom corn. Its profitableness depends on the price of the broom, which is liable to much fluctuation. Any soil adapted to Indian corn, will grow broom corn. It is generally cultivated with most success on low, rich alluvial lands. The seed is drilled in about 3½ feet apart, as early in the spring as the soil can be got ready. As soon as the corn appears above ground, it is hoed, and afterwards the plants are thinned out so as to leave them 2 or 3 inches apart. The horse cultivator should be kept constantly going, and the weeds near the plants be cut up with the hand hoe. After the last hoeing, a shovel plow is run through the rows to earth up the plants a little. We should be glad if some experienced cultivator would give us an article on broom corn.

Beet Sugar.—Will you have the goodness to answer through the columns of the Country Gentleman, the following inquiries:—1. What is the exact mode of making Sugar from the Beet? 2. Which kind of beet is the best, for making sugar, and where can the seed be obtained? W.

We have already (p. 118 of Country Gentleman,) given some reasons why the successful manufacture of beet sugar will not probably be soon adopted in this country. Since penning those remarks, we find the *actual cost* of an acre of sugar beets, raised by Hiram Ferry some fifteen years since, at Northampton, on the low lands of the Connecticut river, was $42, per acre, and without any profit, $3.25 per ton. Prices were then much lower than now, and they could not probably be had now for $5 per ton, which only confirms our opinion that their culture will be repaid only by feeding to cattle.

The richest and sweetest beet is the White Silesian, which grows nearly or entirely in the soil—but the mangel wurtzel is much the most productive, and is said to afford the greatest return per acre. Seeds of these varieties may doubtless be had at the principal seed-stores.

The manufacture of the sugar from the beet is difficult and complex—incomparably more so than the manufacture of the best maple sugar. The principal operations are washing, rasping, grating; pressing; clarification, filtration, evaporation, crystalization. So powerful is the machinery needed for rapid rasping (to prevent fermentation from delay) that a speed of 800 to 1000 revolutions are needed per minute, or about 15 per second! Our correspondent will find an *outline* of the process of manufacture given in the last volume of the Transactions of the N. Y. State Ag. Society, in about six pages, beginning at p. 124. A fuller account may be found, comprised in some 40 pages, in David Lee Childs' book on this subject published in 1840, and now out of print, the fullest American book we know of on beet sugar.

Cultivation of Teazel.—Will you or some of your numerous readers inform me of the best method of cultivating the teazel used in woolen factories for the dressing of broadcloth, and where can the seed be obtained. C. W. Rockwell. *South Hartwick, N. Y.*

Hawthorn Hedges.—I wish to inquire through the columns of your valuable paper, for information in regard to Hawthorn Hedges—if they are profitable to raise for fencing purposes. I should like to know what plants are the best for fences, and what for ornamental use. Is it better to raise a hedge from the seed or from plants? A Farmer. *Hadley, Mass.*

Will some of our correspondents answer the above; and also give us their experience with the buckthorn as a hedge plant.

Agricultural School.—Can you inform me of the whereabouts of a good Agricultural Academy, where Agriculture is taught in all its branches, practical and theoretical, applicable to the middle States? one where common school studies are also taught, but where the chief study and employment is Agriculture; having a farm attached, which the scholars are taught to properly cultivate and manage, with proper buildings, live stock, implements, apparatus, &c., amply sufficient to give the scholar a clear and thorough knowledge of the object in view? I mean a place from whence, after the end of a reasonable time of diligent study and observation, the student can come, fully qualified to manage a farm profitably and effectually? Also the name of the principal, charges of tuition (which must be moderate,) and other particulars.

If the editors of the Country Gentleman will answer the above through the columns of their invaluable journal, they will receive the heartfelt gratitude of A Boy of 14 Years, who is "*bound*" to be an Agriculturist worthy of the name. *New-York, Feb.* 27, 1855.

We feel humbled in being obliged to inform our enthusiastic young friend, that there is not, on this broad continent, one solitary institution where young men can learn the practice and science of agriculture. The legislature of Michigan at its last session, appropriated a considerable sum, and $6000 per annum for the purchase of a farm, not less than 500 or greater than 1000 acres, and for the erection of suitable buildings, the payment of Professors, &c., and we shall probably have one agricultural institution where young men can get the knowledge they now sigh for in vain, in the course of a year or two. Whether anything will be done in our own legislature this year for the advancement of the great cause of agricultural education, remains to be seen.

Magnolia conspicua.—One question for the Country Gentleman. In that paper of Jan. 4th, I notice a description of the Chinese white Magnolia. How could I possibly obtain one? Does the seed come to perfection in this country, so that they can be propagated in that way? Or can they be obtained only from slips, or grafts? If so I despair. C. A. W. *Wis.*

Plants may be procured of the larger eastern nurserymen. The only way to propagate it, so far as we know, is from seed, or by budding it on stocks of the acuminated or cucumber tree. The budding is a difficult operation, and the seeds are scarce. We see the seed are advertised in the seed catalogue of Meehan and Saunders, of Germantown, Pa.

Osage Hedges.—How should the Osage Orange be set out—in single or double rows; and how trimmed for a durable fence? W.

We like the single row best, as admitting of easier cultivation while young. The plants may be dibbled in, if only a year old, with great ease and rapidity. If older they must be set in a furrow with a spade. They should be abont eight inches apart. They should be so selected that those of the same size shall be together, so that the large ones shall not overshadow and retain the smaller ones.

When set out, they should be cut down within two or three inches of the ground—the next year six inches higher, the third year nine inches higher still, and so on. A good thick hedge can be made in no other way; and those who are afraid to slash, should never plant. We do not like cutting in summer—it checks growth.

Good, clean, mellow cultivation must be given for several years, or until the hedge is cattle-proof—which under best care, will be in five years—with neglected tillage about 10 years—and with no cutting back, never, probably.

Seeding Land Down to Grass.—*A Lewis Co Subscriber.* The best spring crop with which to sow small seeds is barley or wheat. Oats grow too thick at the bottom, and often smother the young clover and grasses. Ashes or lime, harrowed or cultivated in, would probably prove beneficial. We cannot say whether horse or cow droppings are most valuable; *it depends on the nature of the food.* If the horse eats oats and hay and the cow straw, the horse dung will be much the most valuable: if the food was reversed, the quality of the excrements would also be reversed. A good summer fallow, or two or three well cultivated hoe-crops, is the best method of destroying quack grass.

Brick and Tile Machine.—*A Subscriber, Richfield Springs, N. Y.* Platt and Bros. Canandaigua, N. Y., manufacture Tile and Brick Machines. (See advertisement in this number.) They are also made at Waterloo, and many other places, but we cannot give the names of the manufacturers; they would do well to advertise in our columns.

Poultry Paper.—*J. A. B., Glennville, Ala.* We know of no paper published in this country, exclusively devoted to poultry. The *Poultry Chronicle*, published by Bradbury & Evans, No. 11, Bouverie Street, London, is just the thing you want. They will send it you a year for $4 50, and the postage will cost you two cents per week. We can send you by mail prepaid Browne's Poultry Book for $1.25.

Terra-Culture.—Russell Comstock is here giving lectures on terra-culture at $2 each. We think this rather high. Can you not give us a few hints on this subject? J. H. J. *Valatie, N. Y.*

We have heard Mr. Comstock "disclose the disclosures." For six long weary hours we listened, expecting every minute to hear the profound secret revealed. After the Professor concluded, we had to ask him, in good faith, what, in all the array of incoherent words we had been listening to, he considered his secret. By much questioning we got at it. It appears to be this. The point of union between the roots and stem of the plant, and which in trees is usually called the collar, the Professor has discovered to be the "*seat of life.*" If the tree be planted too deep, the *seat of life* changes its location, coming up to the surface, while the part of the stem between the old seat of life and the new, *throws out roots*, and the original roots and all the wood formed from them, decay. This is the whole secret. The Professor says some good things against planting too deep, that may be worth $2, but which will be found in any treatise on fruit culture. The pretension that the potato disease, the wheat weevil, the yellows and curl in the peach, &c., are due to a violation of Mr. Comstock's law, is the sheerest humbug. In fact there is no such universal law as he pretends to have discovered.

Grasses for New England.—Will you or some of your readers give, through your columns, a list of the best six grasses for New England, to seed with hill pastures, or arable land. May the various seeds be sown at the same time, and what proportions of each per acre. An early answer would much oblige many of your patrons. V.

Will some of our experienced New England correspondents answer the above.

Hominy Machine.—In reply to "M. B." of Frankfort, Ky., I would say that I saw a Hominy machine in operation, that runs with a band, double gear, that makes as pretty hominy as I ever saw—it hulls the corn clean, winnows it, cuts out the hearts and cracks up the grains well. It will make a peck every 10 minutes, or 1½ bushels per hour. The price is $40 I think. They are manufactured by J. M. Atkin & Co., Machinists, Dayton, Ohio. They will move to Xenia, on the first of April. I send you a sample of the hominy. The machine is simple, works well, and one I was highly pleased with, and is the only one that I have ever seen which did its work well. A. Fahnestock.

L. M. C., Aylmer, C. E.—The price of Thomas' Farm Implements is $1.00. We cannot answer your other inquiries. The manufacturers will be glad to give you information in regard to their machines.

Draining Pipes.—*John Davis, Lexington, Mass.* J. Appleton & Anderson of this city manufacture the large tiles for draining cellars, &c. The price is $80 per 1000.

To make Sharp Mustard.

It is a curious fact that mustard seed *whole* does not contain any *volatile oil*. This is only developed (and very gradually) if the powdered seed is moistened with cold or lukewarm water. The peculiar constituent of mustard, *myronic acid*, is changed under the influence of the albuminous matter of the moistened mustard-powder, into the volatile oil of mustard. Hence, if pungent mustard is desired, it should always be moistened with water some time before it is used. Hot water, since it coagulates the fermenting albuminous matter, should not be used.

To make Corn Bread.

Three pints meal, 1 pint of flour or shorts, 1½ pints buttermilk, 1½ do. sweet, two-thirds of a teacup of molasses, 1 table spoonful of saleratus. Bake as soon as mixed. Water will do in place of the sweet milk. C

To Cure Croup.

Messrs. Editors—Several of my children have at different times been suddenly and violently attacked with croup, and have been cured in the following manner:

Divest the child of all clothing about the neck and chest; then bathe the throat and upper part of the chest *freely*, with *cold* water. Let this be done by pouring, sponging, or very frequent application of wet cloths. While this is being done, prepare *warm* water, and immerse the feet in it. This gives relief in a short time, when the child should be put quietly to rest, with a jug of warm water to the feet, when perspiration and sleep soon follow.

Any one can follow these directions *immediately*, and it is a complaint which is soon fatal, unless checked in the early stages, and many precious lives are lost because a physician is not at hand, until too late to save from suffocation.

I have often tried this, and never failed to give relief in one hour, often in half that time. E. Marks. *Fairmount, Onondaga Co., N. Y., Feb.* 5, 1855.

First Year's Experiences in Farming—No. 3.

"Nature," says Varro, "has pointed out to us two paths which lead to the knowledge of agriculture, viz., Experience and Imitation. The ancient husbandmen, by making experiments, have established many maxims. Their posterity for the most part, imitate them: we ought to do both, imitate others and make experiments ourselves, not directed by chance, but reason."

If this reasonable advice of the celebrated Roman writer, was generally followed, how different would be the results of farming! If the spirit of progress and improvement were once infused into farmers, what attainments in the science of agriculture would immediately follow! The servile imitation of our fathers would cease to be characteristic of modern agriculturists, and they would step forth confidently, into that vast field of knowledge and science, which invites them on.

But this advice is not heeded. The worse habits of the olden time are imitated by a large class of farmers, while many of the better practices are obsolete.

My Neighbors.—It has been among my most painful experiences during the year past, to contrast the farm-practices of my neighbors, with the approved husbandry of the present day. One would suppose that in this county, which boasts of some of the best farmers in the state, the class I allude to, would be very small. Such is not the case. We have many such—short-sighted, hand-to-mouth farmers. Let me mention some of their practices and let me ask your readers if similar practices do not prevail around them.

Treatment of Pasture Lands.—As soon as the snow has disappeared in the spring and before the grass is actually growing, my neighbors on both sides of me turn their cattle upon their pastures. The reason for this is, as they say, "they get their own living." The cattle ramble over the whole fields, their feet penetrating several inches into the saturated earth and cutting up the whole surface, in a most ruinous manner. Day after day, have I seen this continued in the early spring, long before it is possible for cattle to obtain nourishment from what they find. No remonstrance or argument can convince them of the reckless waste of such a course, *because* it has always been so, *since they knew the farm.*

Meadows.—If this practice was confined to the pastures it would be easier to forgive the folly. But alas! a similar habit prevails as to the meadows. Almost immediately after the hay crop is removed, the whole stock of the farm, is let loose upon the meadows, and they are regularly cropped, until the snow comes to cover them from their pitiless tenants. Besides bareing the earth to the pinching frosts, which throw out the grass-roots in the spring, the meadows are so closely and perseveringly cropped, that the catttle actually pull out a large proportion of the roots in their eagerness for food.

If perchance a January thaw comes or the snow melts away during the winter, so as partially to lay bare the fields, the cattle are turned in, with the greatest deliberation and regularity, until the protecting snow again covers the earth. During a thaw this present winter, I have seen both my neighbors above referred to, turning their whole stock of cows (from 16 to 20 each) upon their meadows, not for want of hay and fodder enough, but that they might save more hay to take to market. A policy more short sighted cannot be imagined; and the only excuse for it *must* be, that they do not reflect, but imitate in a most servile and stupid manner, the old custom of the farm and place.

Watering Cattle.—My friend west of me keeps 25 cows, 3 horses, &c. During all this snowy, icy winter he has watered his cattle at the road side, several rods from his barns, and has spent more time cutting ice and shovelling snow to open his watering places than it would require to dig a good well in his barn-yard. What labor and trouble to get water! What waste of manure—scattered as it is along the street and around the watering places! What neglect of his cattle, to leave them to such burning thirst, as will drive them through the deep snow and pelting storms for water! What want of care and thrift! And yet all this is suffered year after year.

Yarding Cattle.—My hard-working neighbor last named, has no *regular* barn-yard. He has a sort of fence about a small enclosure, but the boards are always off in some places and the bars never put up. His cows may be seen any pleasant afternoon hovering together in his front yard of his house, which has a south-east exposure, or wandering about the street.

What miserable indifference to the comfort of his herd! What actual loss of manure!

I have no fear of offending my neighbors by my free speaking, for they do not believe in agricultural papers, and consequently do not take them. CIVIS.
Utica, Feb., 1855.

Sheep Husbandry in Indiana.

In a letter on business, J. O. ROSE of Fish Creek, Steuben Co., Ind. gives us a little of his experience in sheep husbandry. He thinks the pure Leicesters the best breed of sheep for mutton and wool combined, and the best cross, the Leicester with the common sheep, "for what they lack in quality of wool they more than make up in quantity." They are more prolific and the lambs are more readily raised than the fine wooled breeds; and are, he thinks, on the whole, more profitable for the small farmer.

Mr. ROSE, two years ago, wintered 30 ewes and one buck of this cross breed. They dropped, in the spring, 49 lambs, and raised 43. The 31 sheep averaged a little over 4½ lbs. of well washed wool, which was sold for 46 cents per pound; making a little over $2. per head. The following December, 40 of the lambs were sold for $100. The following spring, the 30 ewes dropped 44 lambs, and raised 39. They gave, as before, 4½ lbs. of wool each, which sold for 30 cents per pound. In the two years he has lost only two sheep. Mr. R. gives his sheep "good hay, but no grain, shelters to run under during winter, and in summer, good pasture and plenty of salt."

Notes for the Month.

New Work by Liebig.

Prof. Liebig has prepared for the press a new work, "On the Relations of Chemistry to Agriculture, and on the Agricultural Experiments of Mr. J. B. Lawes," in which he reviews with his distinguished ability and power, the criticisms which have been made upon his views as published in his Letters some years since, and particularly those of Messrs. Lawes, Gilbert and Pusey, published in the Journal of the Royal Ag. Society, and sets forth his matured opinions on the Relations of Chemistry to Agriculture with a clearness and force which will not fail to attract the earnest attention of all interested in the progress of scientific agriculture.

Desiring to have this work issued simultaneously in Germany, England and the United States, it has been translated from the original, at the request of Prof. Liebig, by our correspondent Mr. S. W. Johnson, who has sent it to us for publication in this country.

In this book, Baron Liebig lays down in clear, distinct and simple propositions, all the conclusions obtained in his earlier works, *giving their entire substance*, so far as it bears upon the subject in hand, *in a few pages*, and at once possessing the reader of a full understanding of the merits and demerits of the case. Opening with some explanations of the true meaning and relations of what constitutes *theory*, *practice* and *experiment*, he enables one immediately to grasp the further development of his views, before he goes on to apply them to the experiments of Mr. Lawes; which being, in his own language, "distinguished above all others by their extent and duration," and at the same time giving rise to a theory entirely different from his own, merit a most thorough examination.

Liebig's theory, may be summed up in a few words:—"That, in ordinary farm management, presupposed that the composition and character of the soil is right, *such a quantity of ammonia will gradually accumulate in the soil*, as, considered in relation to the previously present soil-ingredients, will be *more than sufficient* to give them their maximum of efficacy." Or, in other words, that to insure the *continuance of the fertility* of a soil, it is only necessary to *replace those mineral ingredients* which are taken off by the crop, as shown in analysis of its ash; and that, consequently, *increased fertility* is to be obtained by further additions of the proper mineral, atmospheric and plant-food.

The experiments of Mr. Lawes, which, it is contended, controvert the theory of Liebig, are the subject of review in the book under consideration; and in a manner, both adroit and plausible, however well it may be able to bear a thorough sifting, Liebig turns the weapons of his antagonist against himself, and claims that by his own arguments, the very things that he seeks to prove are disproved, and those that he would confute are established. Whatever may be our opinion of the correctness of Liebig's views, as defined in it, we can but admire the simplicity and directness with which they are laid down; the admirable manner in which the whole subject, from beginning to end, is brought within the comprehension of the simplest understanding, and the great array of facts and arguments, which, while they all bear upon the subject in dispute, yet afford to every man, aside from this, a field of thought and a fund of information, rarely found in the most bulky volumes. While these are of a kind which the farmer constantly needs and will constantly use,—on the decision of the case in hand, must depend evidently every means by which we would raise Agriculture to the rank of a Science; by which we would make its results no longer so entirely dependant on chance and season and expensive systems of rotation or manuring, but rather calculable and certain, and attainable by all "according to scientific principles, and not according to mere recipes."

☞ *See advertisement on page* 136 *of this paper.*

Mr. Morris' Prize Animals.—The reader will find in this number, a portrait of another of Mr. Morris' beautiful prize animals; and we cannot refrain from the expression of our gratification at the success which has thus far attended Mr. M.'s efforts to present to the public correct likenesses of the best specimens of his herds and flocks. The drawings are highly creditable to the artistic taste of Mr. Page, and show that he possesses the ability to supply what has hitherto been a desideratum in this country. We are glad to hear that he has been engaged to take a large number of portraits for the new edition of Mr. Allen's Herd Book; and if he succeeds as well as his present efforts indicate, they will be a very desirable addition to that work, especially if they are placed in the hands of engravers as competent to do them justice as Mr. J. W. Orr, by whom Mr. M.'s plates have been executed.

Taste of Turnips in Butter.—A correspondent at Philadelphia writes us that he had abandoned the use of turnips as feed for milch cows on account of the disagreeable taste imparted to the milk and butter. He met with the following easy method of removing this objection, and has practiced it for five years with perfect success, both with common flat turnips and with ruta bagas: Slice the turnips 12 hours before they are wanted, put them in, a heap or basket and sprinkle over them a slight coating of fine salt. After they have lain in the heap 12 hours, mix them well together and give to the cows.

Hay Presses.—Those in want of this article, are referred to the advertisement of Messrs. Deering & Dickson. Mr. Dederick's Press gives good satisfaction we believe, wherever it has been tried.

The Winter in England.—In a private letter from J. B. Lawes, Esq, dated Rothamsted, Feb. 15th, he says: "We are now suffering under the most severe weather I ever recollect at this season of the year. For nearly a month the ground has been covered with snow, and the thermometer ranges from 20° to 25° Faht. [If 20° to 25° *above* zero is severe weather, what would you say, Sir, to 20° to 25° *below* zero? We have been enjoying such a temperature in this state during the present winter. Eds.] Up to Christmas we had unusually mild weather. Last year's wheat crop turns out exceedingly productive. I believe it will average 50 bushels per acre on my farm. On the experimental field the highest yield was over 50 bushels per acre; in fact the total produce was 3292 lbs. of grain and 6635 lbs. of straw, an enormous produce to obtain from one acre of land." It is indeed, especially when we consider that wheat has been annually taken from this field for ten years.

Washington Territory.—A letter from a subscriber says that the crops in the Territory the past season were good—particularly wheat, which was very fine, as were potatoes also. The writer adds—"The general interests of this young Territory are advancing, slowly but surely. The soil is inviting, and the climate unsurpassed for healthfulness."

Fish as Manure.—A subscriber in Worcester County, Mass. writes that in all the towns on the North Shore fish are extensively used as a manure. Most of the fish caught at this season are for salting, and the refuse, which is very considerable, consisting of heads, back-bones, &c. when mixed with muck and allowed to ferment a few months makes an excellent fertilizer. For corn, potatoes and turnips he has used it, in this way, with great success. It appears to ameliorate the effects of drouth.

Rape or Colza Seed. The Light-House Board has imported some rape or colza seed of the best varieties, and we are requested to state that all who feel interested in its culture can obtain the seed gratis by applying by letter or otherwise to the Light House Inspector's Office, No. 101, Front St., New-York.

Sale of Short Horns.—We understand Col. Sherwood, of Auburn, has recently sold his fine yearling bull "Corn Planter," and three of his fine Durham heifers, to Mr. J. W. Wilkin of Montgomery, Orange Co.

Ashes Injurious to Cherry Trees.—A correspondent in Oldham Co., Ky., writes us that last winter he applied to each of his cherry trees about one and a half pounds of unleached ashes, and the next spring, soon after they had blossomed, they died.

Foetid Odors Repelling Insects.—Some of our correspondents may remember that a few years since much was said about repelling the curculio by means of the odor from fermenting manure. It was found to succeed on trial, to some extent, but a repulsive heap of manure under each tree was found to be not highly ornamental nor attractive to neatly kept fruit gardens. We observe in a late paper, a notice of a successful experiment in repelling "bugs" from squashes by the application of the same principle. The vines had just commenced running, but for two or three days, the bugs had stripped nearly every leaf. As a desperate remedy, a handful of guano was applied to each hill, avoiding carefully the plants. In twenty-four hours not a bug was to be seen, the plants grew rapidly and bore a heavy crop. The experiment was repeated in many cases, with uniform results.

Ohio *vs.* Nwe-York.—We published some time since, a list of prizes awarded to Col. L. G. Morris, Mount Fordham, at the last State Fair at New-York. A correspondent of the *Ohio Farmer* furnishes that paper with a list of prizes awarded to Mr. Peter Melendy, Thin-a-dis-ka Place, Mt. Healthy, Ohio, from which we learn that Mr. M. received in all, 44 premiums; 5 at the National Cattle Show, amounting to $425; 7 at the Ohio State Fair, amounting to $100, and 1 Diploma; and 32 at the Hamilton County Fair, amounting to $64, and 9 Diplomas—making in all $589 in money and plate, and 10 Diplomas. The correspondent adds—"Mr. M. lives on a farm containing one hundred acres, which took a Premium in 1853, given by the Ohio State Board of Agriculture. He also takes 16 Agricultural and Horticultural papers, which is the secret of his success."

Franklin Co. Ag. Society.—The annual meeting was held in Malone on the 11th of Jan., when the following officers were elected for the ensuing year:

President—JAMES DUANE.
Sec'y—D. R. Sperry.
Treasurer—H. H. Hosford.
Executive Committee—C. C. Keeler, M. L. Parlin, Edmund Sargeant, Geo. Churchill, Samuel Field, Allen Hinman, C. J. Rider.

And a Vice President in each town in the county.

Heading of Cabbages and Cauliflowers.—We see it stated in some of the papers that cabbages and cauliflowers, transplanted twice, with an interval of some two weeks between, will cause them to head much better than without this treatment. It is easy enough of performance, and may be worthy of trial; it is possibly true, that this may be the result.

Several Inquiries.

Messrs. Editors—As the season is approaching for raising calves, will you give us a few words upon the best method? It seems to be the least trouble to let them run with the cow through the summer, but they sometimes get wild, which is a great objection. In the fall of 1852, I was obliged to slaughter a valuable heifer calf on that account. When they are taught to drink from a pail, they become more tame, and are more easily managed. What is the best article besides milk, to give calves that are raising by hand?

As many people on account of the scarcity and high price of straw, are using pine shavings and pine saw-dust for litter, will you tell us their value for manure? I believe they are not enumerated in any list of manures I have ever seen. I should consider them an injury to the land, and about as useful as wooden nutmegs and wooden cucumber seeds. Will muck from a pine and hemlock swamp pay for digging and drawing half a mile? Abel F. Adams. *Fitchburg, Mass.*

We will give an article on raising calves in a few weeks. In the meantime we shall be glad to hear from our correspondents on the subject. According to Boussingault, pine saw-dust contains about as much nitrogen as wheat straw; so that it is not so valueless a manure as you appear to suppose. On heavy soils too, it would doubtless have a beneficial effect, in rendering them more porous; and in furnishing, by slow decomposition, carbonic acid to the plants. We cannot tell without more data, whether it would pay to draw muck half a mile. We have little doubt, however, if the muck is of average composition, but that it would pay well to use it in compost. It should be thrown up to dry before carting, as it certainly will not pay to draw half a mile the large quantity of water muck contains in its natural state.

Flag Stones for Stable Floors.—In the March number of the Cultivator, I find an inquiry from "A Subscriber," as to the efficacy of Flag Stones for stable floors for cattle. I have used flag stone floors for my cattle for several years and am highly pleased with them. I have tried plank, gravel, and stone floors—the stone is far superior to either of the others.

Corn-Planter and Broad-Cast Sowing Machine.—Such a corn-planter as Wm. Smith inquires for, is manufactured by Emery & Co. of Albany—price about $15. I have used one for several years. It works well.

A Broad-Cast Sowing Machine is manufactured at East Bloomfield, by P Seymour, that will satisfy any reasonable man, it sows ten feet wide—will sow all kinds of grain and grass seeds, of any desired quantity to the acre. It will also sow fine lime, bonedust, plaster, &c.—price $55. Henry Keeler. *South Salem.*

Old Lime Mortar.—*E. S. F., Gilsum, N. H.*—The fertilizing value of "old lime mortar, from decayed buildings," is not very great. It may be useful in composts, or pulverized and applied directly to the soil.

Hen Manure.—Noticing that a correspondent wishes to know the best method of applying chicken manure, permit me to give my views and experience on the subject. From 20 hens, I am able, from year to year, to save about 14 bushels from the droppings of the roost, which is taken up from time to time and put into barrels. This, if mixed with about one-third its bulk of common wood ashes, makes a very valuable manure. I consider it worth $1.00 per bushel. I use it for *corn*, applying a small handful in each hill, covering it slightly before putting in the seed. I consider it equal if not superior to the best guano. Bela E. Hotchkiss. *Prospect, Conn.*

Japan Peas.—Will you please to inform me in regard to the use of the Japan pea and its cultivation? J. W. Will some of our correspondents please answer?

A State Agricultural College.

The interests of agriculture and of agriculturists have at length been recognized and attended to by the "collective wisdom" of one of the states of the Union. The Legislature of Michigan, during its recent session, has passed an act which makes provision for the organization and operation of such an institution. The act provides that the site for an Agricultural College, shall be purchased within ten miles of the Capitol of the State, of not less than 500 acres, nor to exceed 1000; that twenty-two sections of Salt spring lands or the money arising from the sale thereof, shall be appropriated for the purchase of the land, erection of buildings, and all other necessary expenses to be incurred in the establishment and successful operation of said college; that the purpose of the school shall be to improve and teach the science and practice of agriculture; and that the course of instruction in said College shall include the following branches of education, viz., natural philosophy, chemistry, botany, animal and vegetable anatomy and physiology, geology, mineralogy, meteorology, entomology, veterinary art, mensuration, levelling, political economy, book-keeping, and the mechanic arts connected with agriculture. The tuition is to be for ever free to pupils within the State.

During the summer scholastic term, or from the beginning of April to the end of October, the pupils are to be required to devote not less than three nor more than four hours to manual labor, no student to be exempt except in the case of sickness or other infirmity.

The step which the State of Michigan has thus taken, in advance, we believe, of any of the sisterhood, may well be an occasion of just pride and satisfaction to all the friends of progress and of agricultural improvement within her own borders, as well as a gratification to the friends of agriculture everywhere. In laying the foundation of such an institution a great step forward has been taken,—one that will promote the cause of agricultural education, not only in the State of Michigan, but in other States also. It is earnestly hoped that this College will soon be in successful operation under the charge of such as will take a deep interest in its prosperity, and that multitudes of the young men of the State will resort to it in search of that discipline of mind and that amount of scientific information, which will furnish the means of making the business of the farmer a more interesting, delightful, intellectual and dignified employment than it has heretofore been.

The example of Michigan will, it is to be hoped, act as a spur to some of her sister States. All of them derive a large share of their wealth from the cultivation of the soil, and it is, therefore, a matter of importance to all the citizens thereof, that those engaged in this source of wealth should be well instructed in, and practically familiar with, everything that has any relation to this great public interest. Here, then, is an opportunity for those farmers who are not, like a good many of their brethren, blind to their own interests;—here is an opportunity, also, for the intelligent friends of the farming community, and all who would promote the best interests of their state, to bestir themselves, to act on public opinion, until there shall be a demand for an Agricultural College or some equivalent means of forming scientific farmers, which cannot be resisted.

FRENCH QUINCE STOCKS.

FOR SALE by the undersigned, one hundred thousand Quince Stocks, both Angers and Paris, in cases of five thousand—expected to arrive some time next month from France. Apply to
E. BOSSANGE,
Ag't for A. Leroy, Angers,
March 8—w4tm1t 138 Pearl-st., New-York.

CRANBERRY PLANTS,

OF the Egg-shaped variety. They are the greatest bearers—often produce from two to three hundred bushels to the acre, and will keep well if properly gathered, and can be raised on poor swampy lands where nothing else will grow. Circulars relating to culture, price, etc, will be forwarded gratis to applicants. Also the *New Rochelle Blackberry*—price $10 per doz —$1 single plants. For sale by F. TROWBRIDGE, dealer in Trees, Plants, &c., New Haven, Conn. March 15—w1tm1t.

PERUVIAN GUANO.

THE above is received *direct* from the Peruvian Government, and is warranted FRESH and PURE, of the FIRST quality. The GOVERNMENT BRAND is on every bag. For sale in large or small quantities, at the lowest price.

Superphosphate of Lime, Poudrette, Plaster of Paris, and all other valuable Fertilizers.
R. L. ALLEN,
189 & 191 Warer-Street,
March 22—12,14.16.18—m2t. New-York.

Fertilizers—Established Nine Years.

KENTISH'S Prepared Guano—Price $25 per Ton. Superphosphate, No. 1, by the New-York Manufacturing Company—Price $40 per Ton. Both these articles can be had at the Depot No. 159 West Street, New-York City.
March 22—w3tm3t KENTISH & CO.

NOTICE.

PERUVIAN GUANO. As there are various substances now offering for Peruvian Guano, in the New-York market, to avoid imposition, be particular to observe that every bag of the genuine Peruvian Guano has branded upon it,

WARRANTED NO. 1.

PERUVIAN GUANO,

Imported into the United States by

F. BARREDA BROTHERS,

FOR THE PERUVIAN GOVERNMENT.

When taken in quantities from 1 to 5 Tons,........$48
do do do 5 to 10 do 47
do do do 10 to 15 do 46
A further discount in larger quantity. 2000 lbs. to the ton.
A. LONGETT, 34 Cliff-st.,
March 22—w4tm2t Corner of Fulton, New-York.

BLACK HAWK.

THE original VERMONT BLACK HAWK will serve a limited number of mares the coming season at $100 each. Gentlemen wishing to secure the services of this horse, must send in their letters at once.

Good pasturing at 50 cents per week. All accidents and escapes at the risk of the owner.
DAVID HILL,
March 1, 1855—m5t Bridport, Addison Co., Vt.

To Agriculturists, Manufacturers, &c.

DRAWINGS and Engravings on wood, of animate and inanimate objects, executed at fair prices and in the best style. by
J. B. SEYMOUR,
Feb. 22—w&m3m 57 Broadway, Utica, N. Y.
N. B Portraits of animals true to nature.

NOTICE TO THE PUBLIC.

WHEREAS, many Grape roots are now being sold in different parts of the country, for the EARLY NORTHERN MUSCADINE, which we consider the best of all Grapes for this northern latitude—the public are hereby cautioned against imposition; as many of these are spurious, and not the genuine kind, as there has not yet been time to grow many since these first came before the public. The subscribers will only hold themselves responsible for the genuineness of such as are ordered to their personal address, or of their legally appointed agents, who will at all times be able to to show proper reference to that effect.

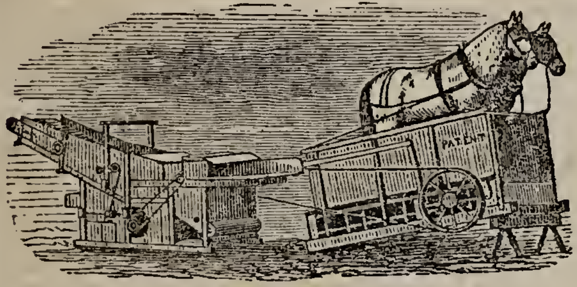
D. J. HAWKINS.
P. STEWART.
New Lebanon, Shaker Village,
Columbia Co., N. Y.
March 15, 1855—w2tm2t.

Madagascar or Lop-eared Rabbits.

THE subscriber having purchased of S. V. C. Van Rensselaer his entire stock of Fancy Rabits, now offers a few choice pairs for sale at from $5 to $10, the pair, carefully hutched, and delivered at Hudson. These rabbits are bred from stock obtained by R. H. Van Rensselaer, of Morris, N. Y. from Francis Rotch, Esq, are of sufficient age for breeding, and are warranted equal to any in the country. The colors are various. Among them are several pairs of black and white, which are very pretty.

Also a few fine pairs of GREY SHANGHAI or BRAMAH POOTRA fowls, and eggs of the Black Spanish, Bolton Grey, Speckled Dorking, and Shanghais in all their varieties, including the Golden and Silver Spangled. The latter from the parents of the fowls exhibited by S. V. C. Van Rensselaer in Oct. last at the N. Y. State Fair.

E. G. STUDLEY,
Claverack N. Y.
March 15—w4tm1t*



G. WESTINGHOUSE & CO.

CONTINUE the manufacture of Threshing Machines, Clover Cleaners, Wood Saws, &c., at Central Bridge, Schoharie Co., N. Y.

We have improved our Thresher and Cleaner, (and for which we have obtained a Patent last year,) which works superior to anything of the kind in use, and has given entire satisfaction where used.

Our Horse-Power, Thresher and Separator, has the name of being the best machine in use, where known. Those wanting machines will be more likely to get them when wanted by ordering them early, as we shall not be able to make more than 100 of them this season. Last year we did not supply the demand by a large number, being unable to get them out in time.

Further information given on application by mail otherwise.

G. WESTINGHOUSE & CO.
Central Bridge, N Y.
March 22—w4tm3t

Choice Field and Garden Seeds,

AT the North River Agricultural Warehouse.

GRIFFING & BRO.,
No. 60 Cortland St., New-York.
Feb. 15—w&m2m

North River Agricultural Warehouse and Seed Store.

GRIFFING & BRO., No. 60 Cortland St., New-York.

PLOWS, Harrows, Vegetable Cutters, Root and Bush Pullers, Ox Yokes and Bows, Reaping and Mowing Machines, Corn Planters, Picks, Hoes, Shovels, Spades, Seed Sowers, Corn Mills, Water Rams, Suction, Force and Endless Chain Pumps, Churns, Horticultural Tools, Hay, Cotton and Cheese Presses, Horse and hand hay Rakes, Garden and Fire Engines, Grind stones, Vegetable Boilers, Field and Garden Rollers, Bull Rings, Cattle Ties, Hay-knives, Cultivators, &c.

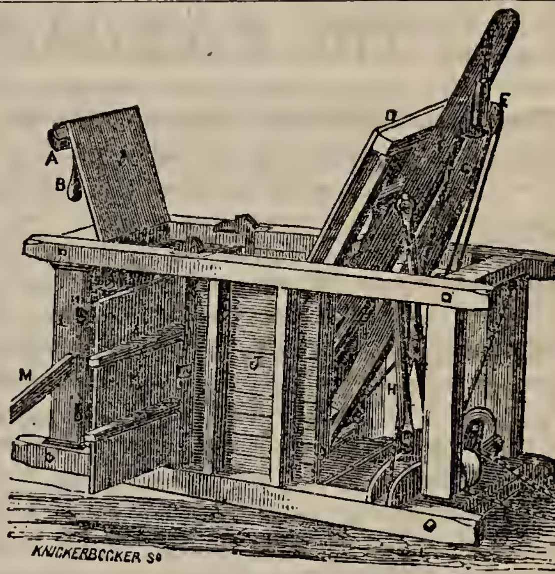
Feb. 15—w&m2m

Farm Lands for Sale,

IN LOTS TO SUIT PURCHASERS.

OVER **2,000,000 OF ACRES** of Selected Prairie Farm Lands, belonging to the Illinois Central Railroad Company. The price will vary from $5 to 25, according to quality, location, &c. The purchase money may be payable in five equal installments, the first to come due in two years from date of contract, the others annually thereafter—giving six years to pay for the land, with a charge of only *Two per cent per annum interest.* The first two years' interest payable in advance. The Company's construction bonds received as cash. Apply to

CHAS. M. DUPUY, Jr.,
Land Agent Ill. Cen. R. R. Co.
No. 84 Lake St., Chicago, Ill.
March 15—m6t*



Dederick's Hay Press.

Dederick's Parallel Lever Horizontal and Vertical Portable Hay Press. Patented May 16th and June 6th, 1854.

THE above new, powerful, and exceedingly convenient Press, with two men and a horse, will bale, according to the No. of the press, from six to eight tons of hay per day. The Press for 300 lb. bale, is 12 feet long, 5 feet high and 3½ wide. It can be drawn by a pair of horses or oxen, as a sleigh is drawn, from one field or farm to another; and whenever stopped, is always ready for operation. They are now being shipped to all parts of the country, and are, in every case, giving the highest satisfaction. They have received the 1st Premiums at the New-York, Ohio and Pennsylvania State Fairs. Prices, according to the size, from $130 to $175.

For for further particulars, address

DEERING & DICKSON, Manufacturers,
Premium Agricultural Works, Albany, N. Y.,

Or either of the following Agents:

John Maher & Co., P. B. Gates, New-York
Paschall Morris & Co., Philadelphia, Pa.
James Wardrop, Pittsburg, Pa.
James Garget & Co., Cleveland, Ohio.
Byram, Pitkin & Co., Louisville, Ky.
Wm. M. Plant & Co., St. Louis, Mo.
Mumford & Co., Lafayette, Ind
A. J. Kenworthy, Thornton, Ind.
J. W. Holder & Co., Bloomington, Ill.

March 15—w&mtf

FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPER & Co., 41 Water St., New-York; Caleb Gasper, Esq., Marcellus, Onondaga Co., Geo. Young, Esq., Milo Center, Elias Bently, Esq., Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N. Y., Judge Ellsworth, Pen Yan.

March 1—mtf—

EXCELSIOR AGRICULTURAL IMPLEMENT MANUFACTORY,

WARE-HOUSE AND SEED STORE,

369 & 371 BROADWAY, ALBANY, NEW-YORK.

RICH'D H. PEASE, PROPRIETOR.

THE EXCELSIOR HORSE POWER,

WITH

Threshers, Separators, Cleaners, Clover Hullers, Circular and Cross Cut Saw Mills,

For various purposes, and all other Implements adapted to the Power, is not surpassed by any now in use, and is offered on the most Liberal Terms, both as to discount and warrantee.

THE subscriber is manufacturing the above Power, which combines all the valuable qualities of the EMERY and other Powers, and some important improvements.

PRICES FOR 1855.

Excelsior Changeable Railroad Horse Power, Thresher and Separator, for two Horses,	$160 00
do do do for one Horse,	128 00
do two Horse Power, with Thresher and Cleaner combined,	235 00
do two Horse Power, including Band Wheel,	116 00
do for one Horse,	85 00
Threshing Machine, with Separator and fixtures, 26 inch Cylinder,	40 00
do 24 inch Cylinder,	37 00
Set of Bands for Machine, with Extras, &c,	5 00
Fanning Mills, fitted for Power,	$26, $28, 30 and $32 00
Portable Circular Saw Mills, 24 inch Circular Saw, for Wood Cutting, &c.,	37 00
Extra Table and Saw for Slitting Boards and Fencing Stuff, and general shop use,	7 00
Upright or Felloe Saw for Wheelwrights' use,	40 00
Cross-Cut Saw Arrangements, for Power, for cutting logs, greatly improved,	25 00
Churn Attachment, to Power, for one or more Churns,	12 00
Feed Mills, with iron plates,	40 00
Power Corn Shellers,	$40 to 55 00
Clover Hullers,	$30 to 100 00
Excelsior Cider and Wine Mill—Kreuser's Patent,	40 00

A moment's examination of this mill will discover its peculiar advantages over all other mills in use. Two men will readily make from eight to ten barrels of Cider per day, and that with seven or eight bushels of good apples per barrel. By the application of Horse Power, much more may be done, It is as well adapted, in all respects, to the manufacture of Wine, from the Grape, as Cider from the Apple. The pulp, or pumice, is easily subjected to a pressure of about ten tons, by the use of a lever, in the hands of one man. It is very simple in its arrangement, and from its peculiar construction is not liable to get out of order by any ordinary or necessary use, and it cannot be clogged by over-feeding. This Mill took the first prize, (a Silver Medal.) over Hickok's, at the Pennsylvania State Fair. We have no space for numerous recommendations.

Sausage Meat Cutters,	$3 to $10 00
Hydraulic Rams	$8 to 30 00
Fanning Mills, (Grant's)	$21 to 31 00
Coal, Garden and Canal Barrows,	——
Grind Stone Fixtures,	$1 50 to 2 25
Pruning Shears and Horticultural Tools,	
Hay Cutters, for Hand or Horse Power,	$7 to 28 00
Patent Ox Yokes,	$3 25 to 3 50
Vegetable Cutters,	10 00
Grain Cradles and Scythes,	
Cowing's Pump for Cisterns,	$2 to 5 00
do do for Wells,	$6 to 12 00
Corn and Seed Planters,	$3 50 to 14 00
Mowing and Reaping Machines, of the most improved kinds,	
Furnaces, for Farm use,	$9 to 24 00
Field Rollers,	$25 to 60 00
Garden Rollers,	$6 to 22 00
Grain Drills,	$80 to 100 00
Garden and Fire Engines,	$25 to 300 00
Chain Pumps,	10 00
Sugar Mills,	$10 to 20 00
Barrel, Cylinder and Thermometer Churns,	$1 25 to 11 00
Store Trucks,	$5 to 16 00

Rifles and Sandstones, Hand Rakes and Potato Hooks, Hoes, Spades and Shovels; Hay, Barley and Manure Forks; Garden and Cranberry Rakes; Axe, Shovel, Spade and Fork Handles, Bog Hoes and Bush Hooks, Ox Muzzles and Cattle Chains; Post Augers and Crowbars, Corn Knives and Grass Hooks, Garden and Lawn Ornaments; Butter Bowls, Ladles and Moulds; Feed Mills, Corn and Cob Crushers. Bird Seed and Bird Cages, Well Buckets, Wash Tubs, Washboards, Watering Pots, Coffee and Bark Mills; Fruit Pickers and Apple Parers; Half Bushels, Corn Baskets and Scoop Shovels.

FIELD AND GARDEN SEEDS.

Winter and Spring Wheat and Rye.

Barley, Oats and Buckwheat; Indian Corn of different varieties; Clover and Grass Seed.

Flax Seed, Peas and Beans, Potatoes in their season; Beet, Carrot, Ruta Baga, Onion, Cabbage, Parsnip, Turnip, Squash, Melon and Cucumber Seeds, and all other varieties required for the Farm and Garden.

GUANO, Bone Dust, Poudrette, Superphosphate of Lime, Marls, and various other Fertilizers.

Draining Tile furnished to order.

☞ All orders promptly attended to, if addressed to

RICH'D H. PEASE, Albany, N. Y.

March 22—w1tm

SUPERIOR THOROUGH-BRED

Devon Cattle and Essex Pigs for Sale.

THE subscriber, having this day purchased from Mr. W. P. Wainright, his interest in the herd of Devon Cattle hitherto owned conjointly by them, will continue to give his strict attention to the breeding and raising of this increasingly popular breed. Having now a herd of over twenty head, bred entirely from animals of his own importation, he is enabled to offer for sale a few young Bulls and Heifers, of very superior quality.

Also constantly on hand, thorough-bred ESSEX PIGS, descended from the best imported stock.

For full particulars as to age, price, pedigree, &c., address

C. S. WAINRIGHT,
Rhinebeck, Dutchess Co., N. Y.

April 1—m3t

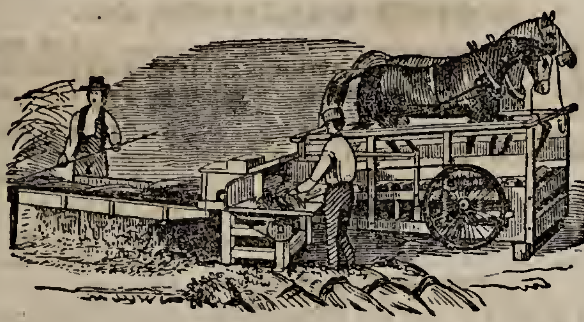
Super-Phosphate of Lime.

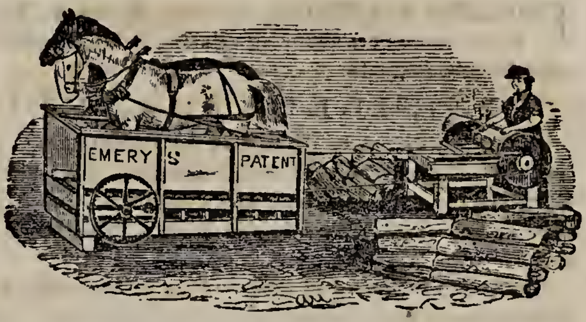
THIS celebrated fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian guano, in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of *phosphate*, which is often the case. All crops are benefited by its application It is composed of ground bones, decomposed by sulphuric acid, to which is added a due proportion of Peruvian guano, sulphate of ammonia, &c.

For sale, with *full* directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT, Ag't for manufacturer,
5 Commercial, cor. of Chatham st., Boston.

Feb. 16, 1854—w&mtf





ALBANY AGRICULTURAL WORKS,

ON HAMILTON, LIBERTY, AND UNION STREETS;

WAREHOUSE AND SEED STORE,

REMOVED TO

No. 52 State Street, Albany, N. Y.

The Proprietors of the above named establishment being the sole owners and manufacturers of

EMERY'S PATENT HORSE POWER, &c.,

☞ ALL ARRANGEMENTS WITH OTHER PARTIES FOR THEIR MANUFACTURE HAVING EXPIRED, ☜

have formed a new copartnership, under the firm name of

EMERY BROTHERS,

And will continue the manufacture and sale of AGRICULTURAL IMPLEMENTS and MACHINERY, as heretofore, at the old stands of EMERY & Co. By this arrangement the united efforts and interest of the Brothers, long known to the public, are secured, and no exertions will be spared to meet the wishes of those dealing in and using the class of implements they manufacture—their leading branch being the manufacture of the justly celebrated

Emery's Patent Changeable Geered Railroad Horse Powers,

With the machines to be propelled by it, as Threshing Machines, Saw Mills, and Machinery generally.

These Powers having been submitted repeatedly to the most severe tests and trials to determine their relative merit and utility with those of every known manufacturer, have without exception been awarded the highest prizes for superiority—among which were the following:

N. Y. STATE AG'L SOCIETY, 1854, 1853, 1852, 1851, 1850.
OHIO STATE BOARD OF AG., 1854, 1853, 1852, 1851.
MICHIGAN STATE AG'L SOCIETY, 1853, 1852, 1851.
INDIANA STATE AGRICULTURAL SOCIETY, 1853.
ILLINOIS STATE AGRICULTURAL SOCIETY, 1853.
PENNSYLVANIA STATE AG'L SOCIETY, 1853.
MARYLAND STATE AGRICULTURAL SOC'Y, 1853.
MISSOURI STATE AGRICULTURAL SOCIETY, 1853.
AMERICAN INSTITUTE, 1852, 1851.
NEW YORK CRYSTAL PALACE, 1853.
CANADA PROVINCIAL SOCIETY, 1852, 1851.
CONNECTICUT STATE AGRICULTURAL FAIR, 1854.

WARRANTY, CAPACITY, ECONOMY, &c.

The Two HORSE POWER and THRESHER, is capable, with three or four men, of threshing from 175 to 225 bushels of wheat or rye, and the ONE HORSE POWER from 75 to 125 bushels of wheat or rye; or both kinds of powers, &c., are capable of threshing double that amount of oats, barley or buckwheat, per day, of ordinary fair yield. If the crops be extraordinarily heavy or light, greater or less results will follow.

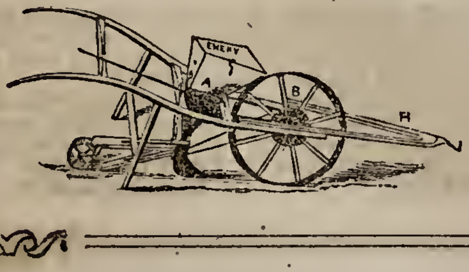
These Powers, Threshers, &c., are warranted to be of the best materials and workmanship, and to operate as represented by this Circular, to the satisfaction of the purchasers, together with a full right of using them in any territory of the United States, subject to be returned within three months, and home transportation and full purchase money refunded if not found acceptable to purchasers.

The public may rest assured the reputation heretofore earned for our manufactures, shall be fully sustained, by using none but the best material and workmanship; and by a strict attention to business, they hope to merit and enjoy a continuance of the patronage heretofore so liberally bestowed, which we respectfully solicit.

N. B. All articles bear the name of "EMERY" in raised letters upon the cast iron parts, and however much others may resemble them, none are genuine without this mark.

Full descriptive illustrated price Catalogues sent gratis on application.

Albany, N. Y., March 15, 1855. **EMERY BROTHERS.**



Emery's Albany Corn and Seed Planter—for Hand or Horse.

The machine measures its own quantity of seed, deposits it in hills or drills at pleasure—corn, beans, peas, &c., by means of a cylinder and their gravity—beet, carrot, onion, and small Seeds, by a revolving brush, and at any distance apart, covering the seed, and compressing it by means of the roller, at one and the same time. Several hundred have been sold annually, and have given universal satisfaction. One acre per hour is readily planted, with the rows three feet apart. Price, $14.

FOWLERS and WELLS, No. 308 Broadway, New-York, publish the following valuable Scientific and Popular Family Journals:

LIFE ILLUSTRATED:

A FIRST-CLASS WEEKLY NEWSPAPER,

devoted to News, Literature, Science, and the Arts; to Entertainment, Improvement and Progress. One of the Best Family Newspapers in the World. Two Dollars a year.

The Scientific American says: "It is of large size and faultless typography. Almost every branch of human knowledge is treated by able writers." The Rhode Island Reformer says: "We pronounce it the most beautiful Weekly in the Union."

THE WATER-CURE JOURNAL:

Devoted to Hydropathy, its Philosophy and Practice; to Physiology and Anatomy, with numerous Illustrations; and those laws which govern Life and Health. $1 a year.

The most popular Health Journal in the world. [Eve. Post.

THE PHRENOLOGICAL JOURNAL:

Devoted to all those Progressive measures for the elevation and Improvement of Mankind. $1 a year.

"Devoted to the highest happiness and interest of man, written in a clear and lively style, afforded at the 'low price' of one dollar a year, it must succeed in running up its present large circulation to a much higher figure." [N. Y. Tribune.

For Three Dollars, in advance, a copy of each of these three Journals will be sent one year. Address, prepaid,

FOWLERS and WELLS,
Feb. 8—w4tm2t No 308 Broadway, New-York.

HIGHLAND NURSERIES,

NEWBURGH, N. Y.

A. **SAUL & CO.** in calling the attention of the public to their establishment, deem a lengthened notice unnecessary. They would merely state that the stock of their nurseries which they offer for sale the coming spring, is full in every department, and is of the best quality; including all the recently introduced *Pears* and other fruits, both *Dwarf* and *Standard*; also all the varieties in the *ornamental department*, both deciduous and Evergreen, including all the new and rare *Conifers*, *Weeping Trees* and *Shrubs*, as well as a full stock of all the leading articles to be had in the trade.

For particulars in detail they refer to their general catalogue, a new edition of which is ready, and will be forwarded to all *post-paid* applications, enclosing a P. O. Stamp to prepay the same.

A large quantity of Osage Orange and Buckthorn plants for hedge and screen purposes.

Dealers and planters of trees on a large scale, dealt with on the most liberal terms.

Newburgh, Feb. 22, 1855—w&m2m

THOMAS GOULD,

BREEDER of Durham and Devon Cattle, Leicester Sheep, Suffolk Swine, Madagascar or Lop-eared Rabbits, English Ferrets, Guinea Pigs, Choice and Fancy Poultry.

Jan. 18—w&mtf Aurora, Cayuga Co., N. Y.

MANURES.

PERUVIAN Guano, Bone-dust, Superphosphate of Lime, Poudrette, Plaster, Charcoal, Oil of Vitriol, &c., for sale by GRIFFING & BRO.,

North River Agricultural Ware House,
Feb. 15—w&m2m No. 60 Cortland St. New-York.

Fertilizers.

PERUVIAN GUANO, with importer's brand on each bag —price $48 per ton of 2000 lbs. In less quantity, 2½ cents per lb.

Improved Superphosphate of Lime of the best quality, No. 1—$45 per ton of 2000 lbs.

Bone Dust—warranted pure, at $2, $2.25 and $2.50 per barrel.

Ground Land Plaster.
Pulverised Charcoal.
Poudrette. For sale by A. LONGETT.
No. 34 Cliff Street, one door from Fulton.
Feb. 22—w4tm2t. New-York.

OSIER WILLOWS, &C.

THE subscriber will furnish cuttings of the SALIX VIMINALIS, the best OSIER WILLOW, at $3 per 1,000. They can be sent during the winter and early spring to all parts of the continent.

Orders addressed to the subscriber, care of C. P. Williams, Albany, N. Y., will meet with prompt attention.

Also all varieties of Fruit Trees, Foreign and Native Grapes, &c. Catalogues sent on application.

S. P. HOUGH.
Feb. 8—w8tm2t Hillside Nurseries, Albany, N. Y.

Thorough-Bred Short Horns.

DURHAM Bull and Heifer Calves, descended from the herds of Mr. Bates and his nephew Mr. Bell, for sale.

HERMAN WENDELL, M. D.
Nov. 23—wtf Albany.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

PURE BRED ANIMALS

AT PRIVATE SALE.

Mount Fordham, Westchester Co., 11 miles from City Hall, New-York, by Harlem Railroad.

HAVING completed the sale of my domestic animals, as advertised in Catalogue of 1854, excepting Short Horn Bull BALCO (9918), and at prices highly remunerative, for which patronage I feel grateful, not only to the public of almost every State in our Union, but to the Canadas, Cuba, and the Sandwich Islands, *I will issue about the 1st of March, a Catalogue for* 1855, consisting of Short Horned Bulls and Bull Calves, (some of which belong to my friend and part associate, Mr. N. J. Becar,) North Devon Bulls and Bull Calves, Southdown Rams, Suffolk, Berkshire and Essex Swine, now ready for delivery, of almost all ages, and of both sexes. This Catalogue will be illustrated with portraits of my Prize Animals. Most of the original animals of my breeding establishment, were selected by me from England in person, and strictly in reference to qualities, in my judgment, best adapted for the use of this country.

Feb. 1—w&mtf L. G. MORRIS.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

Ditch Diggers, Tile and Brick Machines,

Manufactured by PRATT & BROS., Canandaigua, N. Y.

THE Ditch Digger and Tile Machine were constructed to cheapen and extend Drainage. Ditches must be made cheaper and faster, and Tile must be made easily, simply and extensively. The Farmer feels it and agriculture demands it: and we beg leave to say to all interested, that these machines will accomplish the object.

We warrant our Ditch Digger to be capable of cutting from fifty to 150 rods of Ditch in a day, by the use of one man and two horses, not less than 2½ feet deep; and that this implement is made in a thorough and workmanlike manner.

We warrant our Tile Machine to be capable of making from tempered clay, 10 to 15,000 Tile or Brick in a day, by the use of two horses—grinding the mud and making the Tile or Brick at the same time and by the same operation—using steam or water power with equal facility.

This Tile Machine enables Brick makers to make Tile and Tile makers to make Brick, changing from one to the other in less than 5 minutes, and the cost of the Machine is no more than those in ordinary use, it being the simplest arrangement known. The quality of Brick made, is but a little inferior to pressed Brick.

Farmers, if you want Tile made cheap and near you, see yourselves that it is done. See to it that *some one* gets a machine and makes them. Farmers, if you want Ditches made quickly and cheaply, buy a Ditch Digger, or find a man that will do it. Farmers and others, if you want to see these machines at work, come when frost has disappeared and see them. We shall be ready, and take pleasure in showing them to you.

Brick makers, do you want to change your business for the better? Then make Tile and better Brick, and you will be the gainer, and agriculture accommodated. We have a large number of Tile Dies from which to select.

Dealers in Agricultural Implements, we will supply you on favorable terms. Persons wanting exclusive Patent privileges, we will negociate with you. All, wanting any further information, will please address PRATT & BROS

Dec. 21—w&mtf. Canandaigua, N. Y.

Farm Lands for Sale.

The Illinois Central Railroad Company

Is now prepared to sell over Two Millions of Acres of Prairie Farm Lands, in Tracts of Forty Acres or upward, on Long Credit and at Low Rates of Interest!

THEY were granted by the Government, to encourage the building of this Railroad, which runs from the extreme North to the extreme South of the State of Illinois The road passes, from end to end, through the richest and most fertile Prairies of the State, dotted here and there with magnificent Oak Groves. The recent opening of nearly six hundred miles of the Company's Railroad throws open their lands for cultivation, they being scattered for several miles in width, on each side of the road, throughout its entire length.

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Jan. 18—w1am4t—m4t BENJAMIN DANA.

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THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. III. ALBANY, MAY, 1855. No. V.

Hoof Ail in Cattle.

MR. TUCKER—In this immediate vicinity a good many cattle are dying with what is called the Hoof Ail. They are taken lame; some will lose one hoof, some both hoofs; some will lose a foot off at the joint below the dew-claws, and some will lose both feet (hind feet.) Now if you could give your readers a remedy for the disease through your paper, you would confer a favor that would more than pay for getting up the club in this town. Some think the cause of the disease is owing to feeding them with June grass which contains a smut similar to rye smut, and which causes the stagnation of blood; while others think different. I have lost four and have three more cows affected with the disease, and if you know of a remedy I would like to have you communicate it to me immediately. F. P. BALCH. *Massena, St. Lawrence Co., N. Y., April* 9, 1855.

"Hoof-Ail," or "Foul in the Foot," is generally conceded to be the same disease, though there are some who contend that they are entirely dissimilar—the former being a disease of the upper part of the hoof extended to the dew-claw, while the latter is a disease between the claws. We shall consider them as the same disease, and will briefly give a condensed statement of the methods of treatment, which those who have had experience have found effectual.

Make an incision in the hind part of the ankle, half way between the dew-claw and the hoof, where will be found a round substance of flesh of the size of the common hazel nut. Remove it and fill the orifice with equal parts of verdigris, burnt alum and salt, and bind up the ankle with a tarred bandage.

Throw your cattle and with a sharp knife cut deep from a little below the dew-claw to the heel of the hoof from 2½ to 3 inches, and you will discover a bladder that will puff up; take a hook made of a strong wire and pull it out; then fill it up with boiling hot tar; do not be afraid of putting it in too hot.

Dissolve salt in warm water until it becomes so thick that it will no longer dissolve, and when warm apply it to the parts affected; if the disease is of long continuance, salt should be given until it operates as physic.

The following recipe is said to have effected a cure in every instance where it has been applied in the early stages of the disease.

1. Sps. terb., one pint.
2. Ol. amyg. dul., 2 ounces.
3. Nitric acid, 1 ounce.
4. Ol succin. rub., 1 ounce.
5. Ol. oreganum, 2 ounces.

It is necessary to observe great caution in mixing the above articles or they will produce an explosion. First put the spirits of turpentine into a common porter bottle, add the other articles as numbered, and after putting in the nitric acid, the bottle should stand open until warmth or ebullition subsides, then add the succin., and let it stand in like manner; then add the oil oreganum, and let it stand open till cool, after which it may be stopped and stand with perfect safety.

A rowel of poke weed, (*Phytolacca decandra*) inserted in the breast is said to effect a speedy cure.

A farmer who had tried some of the above remedies without any benefit, thinks incisions should never be made. "The cure must be effected by cleansing the blood." This is done with saltpetre and sulphur—one portion of the former to two of the latter. They should be pulverized and made into balls with flour and molasses. Enough should be given to prove a thorough physic,—say from six to eight ounces of the saltpetre and sulphur, according to the size of the cattle. The hoofs should be bathed for half an hour each day with cold water. They must be made thoroughly dry afterwards by rubbing them with a coarse cloth or brush. If the hoofs are dry and sunken, dress them with a little neat's foot oil.

We have much confidence in the following treatment: When the disease first manifests itself, wash the foot in strong soap-suds, and then apply, twice a day, a solution of blue vitriol (*sulphate of copper.*) If the disease is of long standing, the hoof should pe pared away from the upper edge, the offensive matter taken out as thoroughly as possible, and an ointment of corrosive sublimate and lard applied. The animal should be kept from wet, and if the foot is much sore, it should be protected by a bandage of strong cloth.

Dr. DADD, in the *American Reformed Cattle Doctor*, recommends washing the feet with warm water and soap, and then the application of the following poultice:

Roots of marshmallows, bruised, half a pound—powdered charcoal, a handful—powdered lobelia, a few ounces—meal, a teacupful—boiling water sufficient to moisten the mass.

Give the animal the following at a dose:—

Flowers of sulphur, half an ounce—powdered sasafras bark, 1 ounce—burdock, (any part of the plant) 2 ounces.

The above to be steeped in one quart boiling water. When cool, strain. All that is now needed, is to keep the part cleansed, and at rest. If a fetid smell still remains, wet the cleft morning and evening with a solution of common salt—1 ounce salt to six ounces water. Whenever any fungous excrescence makes its appearance between the claws, apply powdered bloodroot or burnt alum.

The affected animals should be placed by themselves, and kept off wet lands.

Crops for Soiling Purposes.

By soiling is meant the practice of keeping cattle in the barn-yard or stable during the summer months, and feeding them on green crops. By this system, more cattle can be kept on a given quantity of land, and a large quantity of excellent manure is produced. It is claimed, too, that cattle will fat more rapidly, or give more milk, than when allowed to roam the field in search of food. In Great Britain, soiling has been pretty extensively tried, and has many advocates. There are few intelligent farmers who do not, to a greater or less extent, feed their *horses*, during the summer months, on green crops in the yard or stable. The same farmers, however, *very seldom soil their milch cows*, or other horned cattle. There are some who do,—and they earnestly recommend the extension of the practice—but there are few practical farmers who follow their example. Their chief objections are that it requires *too much labor*, and that it is difficult to get crops that are in a proper condition to cut from early spring to late in the fall.

The most extensively cultivated crop for soiling horses, is *vetches or tares;* a leguminous plant somewhat resembling the pea, though with smaller pods and darker seeds. There are two varieties; one is sown in the fall and the other in the spring. A good wheat soil suits them best, and, if properly prepared, yields immense crops *in moist seasons.* Horses thrive well on them; they impoverish the soil but little, and the land is left in fine condition for a wheat crop. The winter variety, on warm light soil, is off in good season to sow a crop of turnips after them. It will be perceived that they are a better crop for soiling horses in England, than anything which we have in this country. At the last Provincial Fair of Upper Canada at London, we saw some excellent vetches, but did not ascertain the name of the exhibitor. Will some of our Canada readers inform us whether vetches flourish in this climate. JOHN JOHNSTON, of Geneva, N. Y., informed us some years ago that he had tried them, and come to the conclusion that our summers are usually too dry for them. The advantages of growing them on a wheat farm are so great, however, that they should not be given up without thorough trial.

Red clover is another crop used extensively in England for soiling horses. For this purpose, a field is dressed in the fall, with a good coat of well rotted barn yard manure. Clover top dressed in this way, is fit for the sythe in good season. In Western New-York and Canada, we have seen heavier crops of red clover grown under ordinary cultivation, than we ever did in Great Britain under a lavish application of the most approved natural and artificial fertilizers. If red clover is sown oftener than once in eight years, and on much of the light land oftener than once in twelve years, it does not catch, or if it does, it dies out during the following winter. This is termed "clover sickness"—a disease, we believe, which is unknown in America. Could good crops of red clover be grown in England, with as little cultivation, and with such certainty as in this country, it would unquestionably be used to a greater extent than it is as a green food for horses.

We believe it would pay every farmer to take an acre or two of clover, as contiguous to the barn as possible, and manure it highly in the fall, or with Peruvian guano early in the spring. It would be found of great advantage to feed to the horses in the stable at noon, and for an hour or so before turning them into the field in the evening. Soiling, to this extent, we are confident *will pay.* A few acres so manured, and *cut early*, would afterwards yield a large crop of clover seed; or they might be mown twice as green food for the horses.

In regard to the general economy of soiling all farm stock, we are somewhat sceptical. We freely admit that more stock could be kept in this way, that more manure might be produced, and that the soil might be greatly enriched; but labor is comparatively high, and land comparatively cheap, and whether there would be *enough* gained to repay the extra expense of labor is very doubtful, *except in the neighborhood of large cities.* Nevertheless, we believe that *partial soiling* may be adopted on most farms with advantage.

Indian corn is probably, all things considered, the best green crop we can raise in this county, for milch cows and working cattle. By sowing it thick, in rows, and manuring it highly, a heavy crop of succulent stalks may be obtained, containing more nutritive matter, probably, than can be raised on an acre in any other way, except by irrigating grass land.

One of the great advantages of soiling, or in growing any food for stock, is the means it affords of providing manure for the high-priced grain crops. It is, therefore, very important that a crop, grown as food for stock, should be as slightly exhausting to the soil as possible. In other words, that when the manure made from the crop is returned to the soil, the field should be richer rather than poorer. In this view of the subject, we fear Indian corn cannot be considered so good a crop for soiling as clover, or, if they were adapted to the climate, as tares. A few such experiments as we proposed last week would decide this point.

Italian rye-grass, is a loudly lauded crop for soiling in Great Britain. There can be no doubt that it is a good food for milch cows, and that *by irrigation* immense crops of it can be grown. It is certainly worthy the attention of American agriculturists. If any of our readers have given it a trial, we should be glad to hear their experience.

Lucerne is a good crop for soiling purposes, but its cultivation is attended with considerable labor in keeping the land free from weeds. It does not reach its full growth till the third year. It is sown early in the spring, in rows, from one to two feet apart, so as to admit of the free use of the hoe, spade, or plow. Its success depends very much on clean culture and thorough pulverization of the soil. Eight or ten pounds of seed are sown per acre. It should be cut but once the first year. After the third year, by high manuring, it may be cut three times.

Seed Time and its Labors—No. II.

Peas.—Peas and beans are termed in Great Britain "fallow crops." Peas are sown, by the best farmers, in drills about 12 inches apart, and hoed. They are thought to be one of the best of crops to precede wheat; not simply because when well hand hoed the land is left in clean condition, but principally because experience proves them to be less exhausting to the soil of those substances most required by the wheat plant. We will not say that as good wheat can be obtained after peas as after a summer fallow on the same land, but we have no hesitancy in asserting that, other things being equal, wheat will do much better after peas than after oats, barley, or Indian corn. But there is another light in which we should view the effect of the cultivation of peas. The great want of all our wheat farms is ammonia. A crop of peas of 25 bushels per acre, contains, in peas, 60 lbs. of nitrogen, and in haulm at least 40 lbs. more. Such a crop, consumed on the farm, estimating the necessary loss of nitrogen, would supply in manure 100 lbs. of ammonia, sufficient to produce at least 15 bushels of wheat, and which cannot be purchased in guano, or any other artificial fertilizer, for less than $16. The cultivation of peas, therefore, affords the wheat grower one of the best means of enriching his farm.

The great drawback to the profitable cultivation of peas, is the "pea bug." We know of no remedy that can be applied on a sufficiently large scale to be of much service to those raising peas for seed, &c. But we think that, as the bug does not materially injure the feeding properties of the peas till November or December, the crop might all be consumed by hogs previous to this. Will it not pay to grow peas for this purpose, bearing in mind the little injury they do the soil, and the great value of the manure made from them?

Peas do well on a recently inverted sod. They flourish with good cultivation on all ordinary soils, though a strong wheat soil reduced to a fine tilth suits them best. Some good farmers recommend to sow them as late as the middle of June, in order to avoid the bug. In most cases, this remedy is as bad as the disease, though we have known instances where good crops have been obtained from very late sowing. In England peas are generally sown earlier than any other spring crop. In this country, we should sow them as soon as the ground could be got into proper condition. In this way, a good smothering crop is obtained, which is harvested in season to allow ample time for preparing the land for the following wheat crop. Two bushels per acre are usually sown, broadcast. If drilled in rows about a foot apart, and hoed, they do very much better. The increase of the crop will pay for the expence of hoeing, and the land will be left as clean for wheat as though it had been summer fallowed. Generally, an application of one or two bushels of plaster per acre will be found of considerable benefit to peas.

White Beans.—Considering the comparative high price obtained for white beans, and the slight exhausting effect they have on a wheat farm, as well as the opportunity they afford for cleaning the land, we are surprised that this crop is not more generally cultivated. An old sod, turned under as soon in the spring as the ground is in good condition, and the surface afterwards well worked with a cultivator, &c., is a good preparation for beans. In this neighborhood they are usually planted about the middle of May. In Western New-York, they are often planted as late as the middle of June. Early frosts often destroy the crop if planted too early. They are planted in rows about 2½ feet apart, and two feet apart in the rows, leaving about six plants in each hill. They are sometimes drilled in rows 2½ feet apart, and only ten inches apart in the rows. The former plan requires less labor in hoeing,—and this is quite a consideration,—though it is not improbable that the thick planting in the rows may produce the largest crop. The horse cultivator should be freely used, and this, with two hand-hoeings, slightly hilling up the last time, will leave the land in clean condition for the next wheat crop. There is no crop better adapted to precede wheat than white beans when properly cultivated. They impoverish the soil but little—less than any other crop except red clover and peas—they are off in good season for wheat, and, if the cultivator has been judiciously used, the land will be so clean and mellow, that the wheat may be put in with the gang plow or cultivator. Indeed, it is said that wheat does better after beans, when put in in this manner, than when the land is plowed in the ordinary way. This is probably the case, since it is not desirable to make land too light and fine for wheat. We should expect unleached ashes to be of more benefit to beans than to any other of our commonly cultivated farm crops. We do not know whether plaster usually proves beneficial on beans.

Red Clover.—It appears to be generally admitted that clover does best sown early in the spring on the young wheat. Every farmer ought to grow his own clover seed, and sow it with an unsparing hand. At least one-fourth of the arable land on a wheat farm should be annually seeded down with clover. It does well, if the land is clean, sown with barley. We know intelligent practical farmers, in Western New-York who sow clover with barley, even when they intend to sow wheat after it the same year. The barley straw, having a little clover mixed with it, is eaten more readily by cattle; while the clover roots, and what little herbage is turned under, furnish ammonia for the wheat crop. We will not say that this course will pay in all cases, but we will say that the average yield of wheat, other things being equal, will generally be in proportion to the amount of clover grown and plowed under or consumed on the farm. Red clover is well adapted to our climate. When properly cured, it makes a valuable hay for horses: and like peas and beans though it impoverishes the soil but little, it furnishes manure rich in ammonia. We consider twelve pounds to the acre none too much seed. Be careful not to cover the seed too deeply. As a general thing, we bury all small seeds too deep. The shallower the better, so that light is excluded, and sufficient moisture is obtained. One to two bushels of plaster per acre sown with the clover, will prove of much benefit to it; and the notion that it makes the straw of the wheat too rank, or delays its ripening is, we believe, without much foundation in fact. Certain it is, that some of the best wheat farmers in the country are in the habit of sowing plaster on their wheat fields for the benefit of the clover. It has no effect on the wheat, but proves of great value to the young clover. There are two kinds of red clover, the small and large, or, more properly, the early and late kinds. The late kind grows large and coarse, and is well adapted for manuring purposes, and, as it ripens at the same time as timothy, it is considered preferable to the small kind for mixed hay. The small or early kind, however, is doubtless the most nutritious, and is the most popular.

Culture of Teasels.

The best soil for teasels, is a gravelly loam approaching to clay. Sandy or muck soil is not good. The best course is, to turn over in April, green-sward, with a good coating of manure, harrow very fine, and when the weather is dry and soil mellow, sow, with a drill or by hand, in rows 3½ feet apart, and so thick as to ensure one or more plants to each foot in the row. Soon as they are up, so that the rows can be seen, run a cultivator or small harrow two or three times between the rows, and thin them with the hoe to six to twelve inches apart. Keep the cultivator and hoes at work through the summer, or go over them three or four times, and suffer no weeds to grow with them. This ends the first year. The second year, run the cultivator through them as soon as the ground is dry in spring, and mellow it well. If the weeding was thoroughly done the previous year, the hoe will not be needed now.

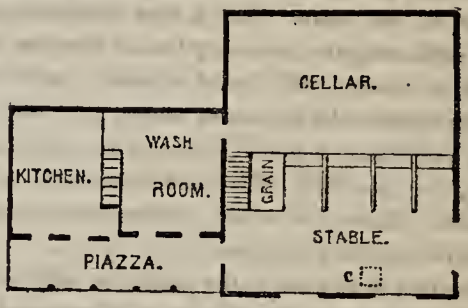
Now for the cutting and curing. Build sheds, open at the sides like corn cribs, with loose cross timbers, inside, about one foot above each other. Then begin a floor on the bottom tier, of narrow boards, laid 1½ or 2 inches apart. We are now ready to cut them. Baskets holding about 2½ or 3 bushels each, are best for cutting into. Shears of common size, ground to a thin sharp edge like a knife, are best to cut with.

About August 1st, they will be fit to cut. This is known when the blows, or petals, have fallen. This does not occur on all at the same time, or all at once on the same teasel, but gradually for a period of several days, depending on the weather. No teasel is really fit to cut until all the blows have fallen from it. Hence it is necessary to go over them about three times. As fast as cut, they should be spread on the open floors described above, so thin that they will not mould, which they are very apt to do in warm or wet weather. About 3 or 4 inches in depth is enough for each floor. The more carefully they are handled in cutting and curing, the better the article. Each cutting should be kept separate. Four to six weeks will dry them, when they are ready for market.

Mr. ROCKWELL can readily see that the crop must sell pretty well, to leave a profit to the grower. Two years use of the land, and constant attention, is necessary to secure a crop. None but a thorough man, can try it with any hope of success. At present, prices are very low, and but comparatively few are used. Frequently the crop is on hand from 3 to 5 years before it is all sold. Present prices, from 70 cents to one dollar per thousand of 10 lbs. Average crop, about one hundred thousand per acre. L. J. H. *Auburn, N. Y., March 12th,* 1855.

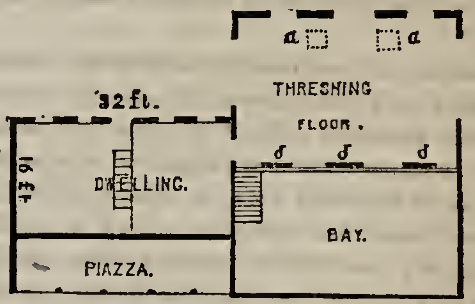
Hill-Side Barn.

I noticed in a late number of your much valued paper, that a subscriber wishes a plan for a "side-hill barn," and I would simply state that I built one last summer, that is "worth coming to see."



BASEMENT.

First—I can drive on the threshing floor, which is on a level with the top of the hill, as also, on the stable floor, and in the manure cellar below it, which is a very great convenience. It is only 30 by 40, and yet it is a large, or a big-little barn, for it is, improperly, four stories high, and the amount of room, and the convenience for doing work is great.



FIRST FLOOR.

Second—I have a brick cistern at the upper side of the barn, containing forty hogsheads of filtered water, which is conducted into the stable by a lead pipe, as also into the "wash room" adjoining, where vegetables are cooked for swine, and conveyed to them, (in the manure cellar) by a sewer which also carries off all slops, &c.

The third and greatest convenience connected with my barn is, *having my farm house joined to it;* and with regard to this I can say, as of my poultry house, it is *highly approved by the tenant.* My man can pass from one to the other without going in snow or water, for when he comes home in a snow storm, he drives di rectly into the barn-yard; and in the morning, he steps in and feeds at 4 o'clock; then takes a nap, and is ready for work betimes.

There are but two objections made to this close proximity of house and barn—first the "smell," and second, the greater loss by fire, if it should take in either part. As to the first, I would say the manure being kept in a cool damp place, and separated by a brick wall, does not *prove to be* as offensive as common barn-yards, though they are many rods from the house. As to the second, if it is a good reason, it is good against large barns, or any barn at all. I keep it well insured, and if it burns, why let it burn.* *J. H. D. Troy, N. Y.*

* Our correspondent may easily satisfy himself and others, as to the *economy* of this connection, by making a careful annual estimate of the saving by such contiguity, and then see what would be the *additional* insurance charged when the two are together, above the cost of insuring the barn and farm-house separately. If this additional insurance is less than the saving effected by the arrangement, there is, of course, a decided saving all round. Eds.

The Grass Crop.

Messrs. Editors—We have taken and read your able paper for ten years, and have seized upon every new number to find something touching our particular hobby, viz., the cultivation of the grasses. We have kept every number, and had them bound in skiver in imitation of the law of the land. We have seen it frequently and broadly hinted that we have no excuse for raising a mean and meager crop of hay, and stated that "no farmer has any business to cut less than two tons per acre." This we do not fully comprehend, as we are ignorant of the cheap mode of doing it. We have in some cases turned over our mowing land in the month of August, to the depth of 7 or 8 inches; manured with twenty-five loads of compost, reseeded to grass without taking any crop, and the prospect is rather flattering for hay. How long land treated in this manner will continue to yield bountifully remains to be proved; but one thing is certain, in most of our lands, when we have taken a crop of corn, potatoes and wheat or oats, there is but little virtue left of the compost applied to produce this much desired and valuable crop.

This skinning is working towards the "little end of the horn," and to depend upon a "good season for hay," by waiting for the rains and snows to do the job, or the three per cent. superphosphate of lime, or giving fifty dollars a ton for guano, and depending upon the phases of "Sol" and "Cynthia," leaves the stock-raiser with but partially filled barns, to carry his flocks and herds through twenty weeks of cold inclement winter, and makes farming as unprofitable, as in some sections, it is mean and unpleasant.

The soil of New Hampshire is as good as any in the country—(we think so,) taking all things into the account. We live in the region of the grasses; the right latitude, and the right altitude, and we intend to take the advantage of it sooner or later. New Hampshire has raised 140 bushels of corn on an acre, and 60 bushels of winter wheat—has raised hogs that weighed 800 lbs. and Morgan horses that sell for thousands. Mr. Wood of Lebanon, N. H., living in a section called Poverty-lane, has raised a pair of steers measuring nine feet in girth, and are just sold for $225.00; you will yet hear from them at the mart. Yet the mowing lands of the state, do not produce one ton of hay per acre.

We are making one hundred loads of compost this winter in our sheds, composed of two loads of muck, and one of sheep manure; this we wish to apply in the spring, either as a top-dressing, to dry upland mow-fields for hay; or to an oat crop for oat hay, or for corn fodder, or in some other manner, to obtain the greatest amount of winter forage for sheep. We ask how to do it?

An article on the best method of raising a great hay crop, would be read by some of your subscribers with great gusto. Charles Colby. *Meriden, N. H.*

The above communication, received some time since, was mislaid, or it would have had an earlier insertion. The hay-crop is one of vast importance, and we shall be glad to receive from our readers any suggestions for its increase, which their experience may have taught them.

Flag Stone for Stables.

Messrs. Editors—As some inquiries of my own have been answered through your paper, I am bound to reciprocate the favor. *A Subscriber* inquires "how flag stone would answer for stable floor for cattle in a bank barn." I have tried it, and am well pleased with the result. The stone should be at least 1½ inches thick, and if iron shod oxen or horses are to be placed in it, 2 inches thick. They should be neatly jointed so as not to permit the liquid manure to escape into the ground beneath. The floor should descend from the head of the stall to about 2 or 3 feet beyond the heels of the animal, and then rise in 2 or 3 feet to the same level, forming as it were a broad shallow gutter, about 6 inches deep. This gutter, running lengthwise with the stables, and also descending, will carry off to the manure heap the liquid manure, and facilitate the operation of cleansing the stable.

The expense of flagging was with me about the same as a 2 inch plank floor of the same extent. The flags, if well laid, maintain their place very well, and are preferable to wood, provided your cattle are littered. But if it is not intended to litter them with straw or corn stalks, or some other suitable material, I would recommend plank as preferable on account of the cold and slippery surface of the flag stones in winter. J. L. Shields. *Sewickly, Pa.*

Agriculture ought to borrow from every science the principles which she employs as the foundation of her own; and although the sciences do not form an indispensable part of the farmer's education, he ought, nevertheless, to have a general knowledge of them.

Grafting the Sugar Maple.

H. Stearns, of Felchville, Vt., in a communication which we have not space to publish entire, calls the attention of cultivators to the importance of the cultivation of the sugar maple, not only on account of its cool refreshing shade, but more especially for the purpose of manufacturing sugar.

After alluding to the varieties into which the sugar maple runs, some rare specimens of which far exceed others in beauty and denseness of growth, which desirable characteristics may be perpetuated by budding or grafting, he examines more minutely the difference in the saccharine productiveness of certain specimens. He assures us that the best trees produce fifteen pounds of sugar per annum, or more than three times that afforded by inferior specimens. He proposes to line the public road with trees propagated from the most productive the country affords, or that a single acre of ground be planted on each farm with one hundred trees. Cultivating them with crops for ten years, and allowing five additional years for growth, they are estimated as large enough for tapping. Fifteen pounds from each will afford fifteen hundred pounds yearly, worth at twelve and a half cents per pound, the sum of $187.50, as the product of a single acre.

We believe the estimated product of each tree is a very high one, and we give this estimate merely as a suggestion to further inquiry. When the cost of labor and fuel is taken into the account, we question whether a higher profit would not be realized by setting out an orchard of the *most productive sweet apples*, or with an acre of the best winter apples. We invite the attention of landowners to the importance of raising maple groves, which must increase in value as timber becomes scarcer; and we hope the subject of the manufacture of maple sugar will receive a careful examination.

The Currant and Currant-Borer.

Messrs. Editors—Early in the spring of 1853, I procured over a hundred fine cuttings from the best varieties of currants, from one foot to 18 inches long, of the previous summer's growth; and wishing to train them like a miniature tree, with a single stem a foot from the ground, as directed by Mr. Downing, and some other writers, I took off all the eyes from two thirds of the lower part of the cutting, and planted them in nursery rows. In the spring of 1854, I set them out, 4 feet apart. Last summer and fall they seemed to be doing remarkably well, many making shoots two feet long; consequently great was my surprise in looking over them a few days ago, to find nearly half of them dead—the tops of many were green and fresh, while the main stem and roots were black and dead. Will you please to give me your opinion in regard to my losing so many in that way? I noticed that some appeared to have been killed by a worm entering them in the branches and descending the main stem, and leaving it black and hollow in the center; but the greater part of them bore no mark of worms or insects.

I should like to know what insects attack the currant and what diseases they are subject to, and the best preventive against them, and remedy for them. J. W.

We have found in this land of hot sunshine, that a single stem for the currant a foot high is not so well as a very short one, or with the branches spreading nearly down to the surface of the earth. The growth of the currant is still more certain, where several proceed from beneath the earth, as the new shoots are a spontaneous renewal of the plants, care being taken to cut out all old wood that has remained longer than three or four years.

The currant-borer is not a very uncommon insect in some parts of the country, often destroying young plants of two or three years of age raised from cuttings. The larvæ are produced from eggs laid singly, near the buds, and when hatched they pass to the pith and devour it. Small sized fruit is usually the first indication of their presence. The stems break off, or become sickly and die. The remedy is cutting and burning The perfect insect is a blue-black moth.

The cause of the death of those plants named by our correspondent not effected by the borer, we cannot determine.

Renovating Orchards.

Messrs. Editors—Can you or any of your contributors, give me any information as to the best method of renovating an old orchard? I have not found any directions in any book to which I have access? H. *Lee, Mass.*

If in sod, plow, harrow, and tear the plowed turf to fragments by re-harrowing—plowing shallow near the trees, and deeper more remotely. Apply a good coating of stable manure, with a hundred or two bushels per acre of leached ashes, or fifty bushels of unleached ashes or lime per acre—harrow these all into the soil, and plow under as deeply as the roots will allow. Thin out the heads, by removing all dead, decaying, or badly stunted and crooked branches, avoiding if possible the lopping of very large limbs; and if re-topping is necessary, follow the directions in the 10th number, current volume, of the Country Gentleman. This treatment will impart new vigor to old trees, the crops will be increased, and the fruit rendered much larger and greatly superior in quality. Where the soil is naturally rich, the application of ashes and lime without manure will be sufficient, provided the thorough mode of pulverizing the soil is adopted as above described. It will not *pay* to plant any crop, if the trees shade most of the ground. In old orchards, the roots extend over the whole surface, and therefore the manuring and cultivation should be *broadcast*.

Ornamental Hedges.

Will you oblige a subscriber to your valuable paper, by giving in your next Country Gentleman, your opinion as to the best ornamental hedge for a lawn and around a garden, as I am about to set out this spring, one for each. A Subscriber. *New-York.*

For an *evergreen* hedge (which we should prefer, for its appearance in winter, and the shelter it affords,) the American arbor vitæ will answer best, as it is comparatively easily transplanted, and bears shearing into any form. The hemlock, however, makes a handsomer screen from its lively green; but the plants are harder to procure, and more difficult to transplant. Both may be obtained of Dell & Collins, of Waterloo, N. Y., and of other nurserymen.

The Buckthorn and privet both form handsome deciduous hedges, hardly stiff enough however, for a barrier against cattle. The privet forms a more dense wall of verdure, and will grow best under the shade of trees, —which very sensibly affects the buckthorn. The Osage Orange forms the best hedge for the exclusion of *boys*, and all other lawless animals.

Regrafting Old Trees.

Editors of the Country Gentleman—About a year ago, I purchased a farm having upon it an orchard of about one hundred thrifty, good, bearing trees, planted some fifteen years ago. But the fruit is of inferior quality; and wishing to obtain good fruit, last spring I had them grafted in the limbs so as to form new tops, and notwithstanding the drouth of last summer they grew well,—many of them are two and a half feet in length. I wish to know at what season of the year, and what proportion of the remaining branches, or if all should be removed at the first pruning, and if it is necessary to apply any mixture or preparation to the wounds, and of what it should consist.

Orchardists and horticulturists are not favorable to this method of propagating fruit, and have not given any directions in relation to it that I have observed. Please state the best wash to apply to trees to remove the rough bark. An early answer to this will oblige, yours, A. S. Hawthorn. *Harlinsburgh, Lawrence Co., Pa., Feb.* 21, 1855.

Our correspondent will find this subject treated of fully, in the late editions of the American Fruit Culturist—and also in an excellent article recently furnished by a correspondent to this paper, which we published last week. *Properly managed*, a bearing orchard of the best grafted varieties may be obtained sooner than in any other way, by regrafting large trees, provided they are not so old as to be diseased, decayed, or stunted. Our correspondent will perceive, from the directions we have referred to, that the process of renewal and removal of old tops, should not be completed in less than about three years. If too many are lopped in a single year, and especially if the trees are quite large, a great and injurious check will be given to the growth of the tree. Autumn or winter is the best season for the removal of unnecessary branches; any time but spring may be chosen. A varnish, made of shellac in alcohol, about as thick as paint, is the best application to the wounds—but a mixture of tar and brick-dust, applied warm, does well, and even common oil-paint will answer. Weak lye or soap suds, is the best application to the bark, after it has been scraped, if rough.

Culture of Asparagus.

The Co. Gent. p. 123, current vol., contains some good practical directions. We may add briefly, that it is a plant that will bear an exceedingly rich soil, provided the manure is finely and thoroughly incorporated with the soil, and that *plenty of room is needed for each individual plant*, its large growth depending on this as an indispensable requisite. From our own observations, we are inclined to think that for its market production, it should be in drills sufficiently remote to admit a narrow horse cultivator. A very common cause of *small shoots*, even in beds which have been dug and enriched two feet deep, is planting too thick or near together, and afterwards allowing the evil to become increased by the self-sowing process, numerous young plants springing up all over the bed. We would give three leading requisites of success, namely—1, *good soil*—2, *good cultivation*—and 3, *plenty of room*.

Spring Pruning of Hardy Grapes.

Messrs. Editors—I wish to learn the best time for pruning grape vines. I have been accustomed to do it late in autumn, when I take down and cover them for the winter. In an article on "Pruning the Grape," on page 74 of the current volume of the Country Gentleman, are directions, in which you say, that "when a vine is first procured from the nursery in the spring, it is usually furnished with several irregular shoots of the previous summer's growth;" and that "these should be all closely pruned to the older wood." Now, I wish to inquire, whether this pruning may be done safely in the spring. I have been taught to do all my pruning in autumn, even to the young vines intended to be taken from the nursery and transplanted the following spring. The reason given is, that all cuttings and wounds made in the spring, cause the vines to *bleed*, and consequently injure their growth.

Will the Catawba grape mature in the open air, north of the 44th degree of N. Latitude? D. V. C. *Chimney Point, Vt.*

It has been an almost universal opinion, that the *bleeding* of grape vines from spring pruning, greatly injures them, and the assertion has not unfrequently been made, "they will bleed to death." We have never discovered the least injury from it so far as *hardy* grapes are concerned; we prune in spring freely, and our experience corresponds with that of several others; some large raisers of grapes, even think the vines are actually benefitted by it.

There is no probability that the Catawba grape will ever fully mature at our correspondent's residence in open air, even if trained on a south wall. He must look to the Diana, Clinton, Concord, and when in a warm place and well summer pruned, to the Isabella.

Horticultural Inquiries and Answers.

1. Should apples be kept out of the cellar after being gathered, till cold weather, in order to keep well, as some say?

2. When planting potatoes with mulch, leaves, &c., should there be earth put on before dropping the seed? I observe they are a long time coming up when mulched.

3. I have heard of the peach being grafted on willow, I think, and other woods—does it make them more hardy, and bear any better? They do nothing here.

4. What kind of grape will endure this northern climate without shelter in winter?

5. Where you wish to water any thing with nitrate of soda how much to a pailful of water?

6. Is there a remedy for the black bunches on plum and cherry trees? I have cut them off and see little benefit.

7. Is there a way to make old strawberry beds bear, without renewal? *Westernville, Feb.* 1855.

Answers.—1. They should be kept *cool*—if the cellar is cold and not damp, it is a good place; if warm and wet, it will prove unfavorable. The sweating process deprives them of a small portion of their water, shrivels them slightly, and lessens their tendency to decay.

2. Cover first with earth, and let the sun act upon it till dry weather approaches, and then apply the mulching. In this way they are benefitted by early warmth, and protected from parching drouth.

3. The peach will never grow on the willow—they are totally dissimilar in nature; we should as soon expect to raise grade calves by turning a short-horn cow to a polar bear. Working the peach on the wild plum tends to render the trees so worked rather hardier.

4. The Clinton, Diana, Concord, and Isabella.

5. Nitrate of soda is very soluble, dissolving in three times its weight of water at 60°, and less than its own weight of boiling water. It should be much more largely diluted, for watering plants; say half a pound or less to a pailful of water. It is usually applied dry, in compost, to ordinary crops, at the rate of one or two hundred pounds per acre, being about one pound to a square rod.

6. The remedy is cutting, and *keep cutting*, washing the wounds where large with chloride of lime. The disease will not be kept under unless this treatment is unremittingly applied—if done only occasionally, or after the tree has become much affected, and the wood filled with the disease, little benefit can be expected. "Eternal vigilance" is the price of good fruit, as well as of other productions of the soil.

7. Old plants have their day—a spontaneous renewal may be affected, by allowing the runners to fill up the spaces between the rows, and then drawing lines at the proper places, to spade in all the old plants—leaving only a narrow strip of the rooted runners.

Pears on Apple-Stocks.

Can you tell me whether pears would do well grafted or budded on apple stocks? W. H. W. *Dubuque, Io*

It is very rare that pears succeed well on apple stocks. Sometimes they will give much promise for a year or two, and then fail. The Winkfield and Summer Bonchretien, will often grow freely for a few years. We have raised about one peck of fine Seckel pears on a small tree on apple root, five years old, but the union being imperfect, it broke off at the surface of the ground. We cannot recommend the practice, except to those who are fond of unsuccessful experiments, often not one in a hundred succeeding after the first year or two.

Peach Blossom Destroyed.

To all appearance a large portion of the Peach blossom is destroyed in this garden. In view of this, the trees will not receive their regular pruning, until the season is sufficiently advanced to determine to what extent they are damaged; which will give an opportunity of pruning them so as to leave those unhurt (if any) on the tree as much as possible. The lowest point observed by the thermometer in this garden (a very sheltered one,) was *eighteen degrees below* zero. E. S. *Albany, March* 15, 1855.

Guano on Grass Lands.

Wishing last spring to improve my grass ground at once, without breaking up the sod and reseeding, I sowed some Peruvian Guano with a very beneficial result. One piece of grass was in my house lot,—an open space of several acres surrounding my dwelling, and too much broken and covered with scattered trees and shrubbery to be ploughed with advantage. The soil here is dry and gravelly, yet with sufficient loam, and naturally fertile. The piece had been in grass for twelve or thirteen or more years, without of late receiving any top dressing but plaster. On this plot of about 6 acres, I sowed in the neighborhood of 175 lbs Guano per acre. Fearing that I might injure the grass, if this were put on in its whole strength, I used a compost of 2 parts of earth loam to 1 of Guano. I am now convinced that this was unnecessary, as far as injury to the grass was concerned, though it was of advantage in more uniformly distributing the Guano over the ground. When this manure is brought directly in contact with the delicate germ of a plant as it issues from the seed, it is too stimulating undoubtedly. Such appears to be the general experience of Cultivators of the more tender products of the garden, but the ordinary herbage of the field is not injured by contact with Guano.

The Guano was sowed in the middle of March; two spaces, one on the north and the other on the south side of my house, were left without sowing. By the middle of April, the effect was very perceptible, and the sowed and unsowed portions were easily to be distinguished even at a distance. The superior growth and thickness of the manured crop, was maintained up to the time of haying. I had no means of comparing the quantity of grass cut at the time with what had been obtained in former years, as this was my first summer on the place, but the men who mowed for me and who had worked a number of years for the former proprietor, said that it was the best crop that they had ever seen on the ground. Nor was I able to discover whether the guano was efficacious in promoting the growth of the aftermath, inasmuch as the severe drouth set in just after haying, and entirely prevented the growth of any grass until fall. At that time the growth, as far as it went, was thick and luxuriant, but I should judge not to any unusual degree.

I sowed in a similar manner, about 2 acres of pasture land, putting on however in the neighborhood of 230 lbs per acre. The vegetation here was of the richest green, and was undoubtedly improved by the application. It held out uncommonly well during the dry weather. This ground was rather of a low, wet nature, subsoil clay. When Guano can be obtained at about $50 or $55 per ton, and the price of hay is from $15 to $20, it may, in default of other manure, answer a good purpose. It is a convenient and useful manure for improving lawns and grass on grounds, where, for various reasons, it is not desirable to introduce the plough. It answered my wishes in this respect, last season.

I used Guano last summer, on corn, oats and potatoes, but there was no extraordinary result visible, principally I suspect from the unwonted dryness of the season, which hardly allowed crops to grow at all. I must say that the crops did promise to excel during the first part of the summer, and no doubt they would have fulfilled expectations had they been permitted to do so. I was myself sufficiently satisfied with the application as regards grass, to determine to try it again on two other fields this coming season. H. L. YOUNG, *Poughkeepsie*.

Seed Time and its Labors—No. III.

Carrots.—We do not know of any other root crop that appears to be so well adapted to our climate and circumstances as carrots. Doubtless, the common turnip, so extensively grown in Great Britain, draws less on the soil than carrots; and, where climate is suitable, affords a better means of enriching a farm. For this reason, we would do all in our power to extend the cultivation of turnips, ruta bagas, &c., but, at the same time, we must admit that they do not appear to be so well adapted to this climate as the carrot; and they certainly are far inferior in nutritive quality. Carrots require much more labor in weeding, and must be sown earlier and at a busier season than the turnips and ruta bagas. Nevertheless, carrots are an exceedingly valuable root crop, and no farmer should be without a considerable plot of them. As a condiment for horses, there is nothing equal to them, and while we cannot agree with those who consider a bushel of carrots equal in nutritive value to a bushel of oats, or with the learned Professor who asserts that, because carrots contain pectic acid, they gelatinize the food in the stomach of a horse, and make it more easily assimilable, yet, as an auxiliary food for horses and milch cows, carrots, and indeed most other roots, are of much more value than the simple amount of nutritive matter they contain would indicate.

A deep, rich, mellow, loamy soil,—not too heavy, and yet containing sufficient clay to enable it, when well tilled, to resist an ordinary drouth,—is admirably adapted for carrots. From 20 to 40 loads of well rotted manure per acre should be spread upon the land in the spring, and incorporated with the soil as much as possible, *before plowing*, with the cultivator or harrow. Then plow it under as deep as the nature of the soil will warrant. Let four hands follow the team, and rake in to the furrow any manure that may be left uncovered, leaving the surface clean and smooth.

The ground should be sown soon after it is plowed, while moist, in rows 12 to 14 inches apart, and about half an inch deep. The soil should be pressed on the seed by treading or rolling. If this is done, and the seed is soaked 48 hours in tepid water, and then dried with plaster, till it will separate readily, before sowing, the difficulty of deficient germination, which many complain of, will be avoided. If sown by hand, 4 lbs. of seed per acre is the usual quantity; if with a drill, 2 lbs. will be sufficient. In the former case, the land should be marked out with a marker made for the purpose, and the seed be covered with a rake.

In this vicinity, carrots should be sown as early in May as the season will allow. If the weather is favorable, they will be up and ready for the first hoeing in about three weeks. The hoe should then be passed lightly through between the rows to kill the weeds. This is very important. Much labor of weeding afterwards will be saved by thus destroying the weeds before they have full possession of the ground. The stirring of the soil also helps the growth of the carrots. In ten days hoe again, weed the rows, and thin out the carrots if too thick. After two weeks, hoe deep, weed, and thin out the carrots to four or five inches apart in the rows, and the work is complete for the season. E. S. Hayward of Brighton, Monroe Co., N. Y., a very successful carrot grower, adopts this system of management. We were over his farm during the severe drouth of last season, and his carrot crop was growing in fine luxuriousness, apparently suffering no injury from the drouth. The land was entirely free from weeds, the hoe was passed through the rows frequently, and doubtless this constant stirring of the soil had much to do in mitigating the effects of dry weather. Mr. H. averages about 1000 bushels of carrots per acre. He says "there is no crop the farmer can raise that pays so well, or yields so much good feed for stock."

Experiments were made with artificial manures on carrots on the State Farm of Massachusetts last year. The manure was apportioned according to its cost, each acre being dressed with twelve dollars worth. The result was as follows:

Barn yard manure,.........................	753 bu. per acre.
Guano,...................................	660
Potash....................................	628
DeBurg's superphosphate of lime,.........	586
Mapes' "improved," do....................	572
Reservoir manure,.........................	510

The report does not inform us what kind of guano was used, but we suppose it to be Peruvian. Good Peruvian guano sown broadcast on the land after it is plowed, and cultivated in, thoroughly incorporating it with the soil, is unquestionably an excellent manure for carrots. A good superphosphate, *in addition to* rich, well rotted barn-yard manure, is recommended. One great advantage of artificial fertilizers for such crops as carrots, onions, &c., is that they are free from weeds and act quick.

Potatoes.—As our correspondents have favored us with several excellent articles on the culture of this important esculent, we will only briefly allude to the fertilizers best adapted for the growth of potatoes.

Repeated experiments have confirmed the correctness of the common opinion that nothing equals hog manure for potatoes. The cold nature of this manure has perhaps something to do with this, but we apprehend that it is due principally to the fact that, hogs eating much grain, the manure is especially rich in ammonia. At all events it is pretty well ascertained that ammonia is largely required by the potatoe crop. Hence for *the production of a large crop*, rich nitrogenous manures, and Peruvian guano are the best.

Potatoes generally command a higher relative price than most other crops. Peruvian guano is an admirable manure for wheat, but at ordinary prices, say $1.00 per bushel, it is questionable whether its application *pays.* On potatoes, at average prices, Peruvian guano is a highly profitable fertilizer. In 1853, H. C. Ives, Esq., of Rochester, planted four acres of potatoes, two without manure and two dressed broadcast with 600 lbs. of Peruvian Guano. The former produced 238 bushels, the latter 410 bushels. That is to say, for 300 lbs. of guano, an increase of 86 bushels per acre was obtained. Last year Mr. C. W. Seelye of Rochester, obtained an increase of 24 bushels per acre from 150 lbs. of Peruvian guano. The less increase in his case, is probably due to the drouth.

The experiments on potatoes on the State Farm of Massachusetts, last year, resulted as follows:

Barn-yard manure,	86½ bu. per acre.
Mapes' superphosphate,	84¾ "
De Burg's do	77½ "
Guano,	92½ "

Twelve dollars' worth of manure was used in each case. It is to be regretted that the yield of the land without manure was not ascertained. The crop, owing to the drouth, was small. The guanoed acre yields the best, though it is well known that dry weather is more hurtful to the action of guano than to that of superphosphate. In another case on this farm, on land that had not been manured for four years, having been mown three years, and the last year cultivated with corn cut for fodder, "400 lbs. of guano gave 189½ bushels of superior potatoes per acre."

From what we have seen of the effects of good Peruvian guano on potatoes, we feel great confidence in recommending it as a profitable fertilizer for this crop. We would sow from 300 to 400 lbs. per acre broadcast, and thorougly incorporate it with the soil before planting the potatoes. A somewhat better effect would be obtained by applying the guano in the hill, covering it with two inches or so of soil, and planting the potato on the top of it. Unless great care is used, however, there is danger of the plant being injured by coming in contact with the guano. It should be scattered over at least a square foot.

Culture of the Potato.

We have been furnished by Mr. John R. Chapman of Madison county, with an article which he wrote two or three years since, on "the planting, cultivating, digging and cellaring of potatoes." It is all good, and we should be glad to give it at length did our limits permit. We give below what he says upon the soil, the seed, and planting, and shall hereafter copy what he says upon cultivation, harvesting, &c.

For the benefit of those who are anxious to live and learn, I will now detail my system of planting, cultivating, and preserving the potato. They can adopt my ideas and method, or not, as seems to them best, but one fact is certain, that if the seasons turn out ordinarily wet, it will be useless to plant potatoes in the expectancy of a sound crop, unless strict attention be paid to the preparation of the soil and time of planting, quality of seed and mode of cultivation, time of digging, and method of preserving during winter.

1. Preparation of Soil.—The best soil, in my opinion, for the growth of sound potatoes, under all seasons, is a sandy loam, resting upon a porous subsoil, with the surface flat and sloping just enough to carry away the water proceeding from a heavy fall of rain. But as every farm will not give us this peculiar soil and situation, we must make the best use of what we have, keeping in view one fact, however, that it is useless to plant potatoes in low wet ground, for they will surely rot. The best plan is for a farmer to set apart four acres of his highest, dryest, and strongest land, and plant one half of it the first year with corn, taking care to plow under a heavy coat of cow dung; the remaining half he can sow with any grain that will give a fair crop. If the soil have been run hard previously, let a top-dressing of twenty bushels of lime to the acre be applied. The year after let him plant with potatoes the half that was corn, and let the half that was grass be planted with corn, and manured if necessary. When plowed for potatoes, the lands ought not to be more than seven paces wide, and plowed eight inches deep, and after planting, the dead farrows ought to be plowed out beam deep. By thus taking an alternate crop of corn, potatoes, and grain, and manuring for the corn, only, he will keep one half this patch of land in most suitable condition for raising sound potatoes. This system will require the land to be manured every five years, enough if a good heavy coat be plowed under.

2. Time of Planting.—The best time for planting, in my opinion, is the fall of the year—say the last week of September in Central New-York,—but as fall planting, in this country is impracticable, on a general scale, unless other crops be neglected, the best time for planting is as soon as the land can be fitted in the spring. Late planting is a serious error, for it is much more natural for seed potatoes to be in the ground than sprouting in the cellar, or wilting on a barn floor. And it is a fact, that the potato tops, whether planted in April or June, generally show symptons of disease in the last week of August, after which event the young tubers discontinue growing. Therefore those potatoes which are planted the earliest will have the longest time to grow, and consequently produce the largest tubers, and the heaviest crop. In times, before the appearance of the rot, the potatoes were generally planted in June, and the tops continued green and growing till nipped by the October frosts, thus allowing full four months for the growth of the plant; but, as things now stand, if we wish the same time of growth, we must plant as early as possible. The soundest and highest colored potatoes I have ever grown, were self-planted in the fall, or what we term "volunteers," and this is a great fact in favor of fall planting.

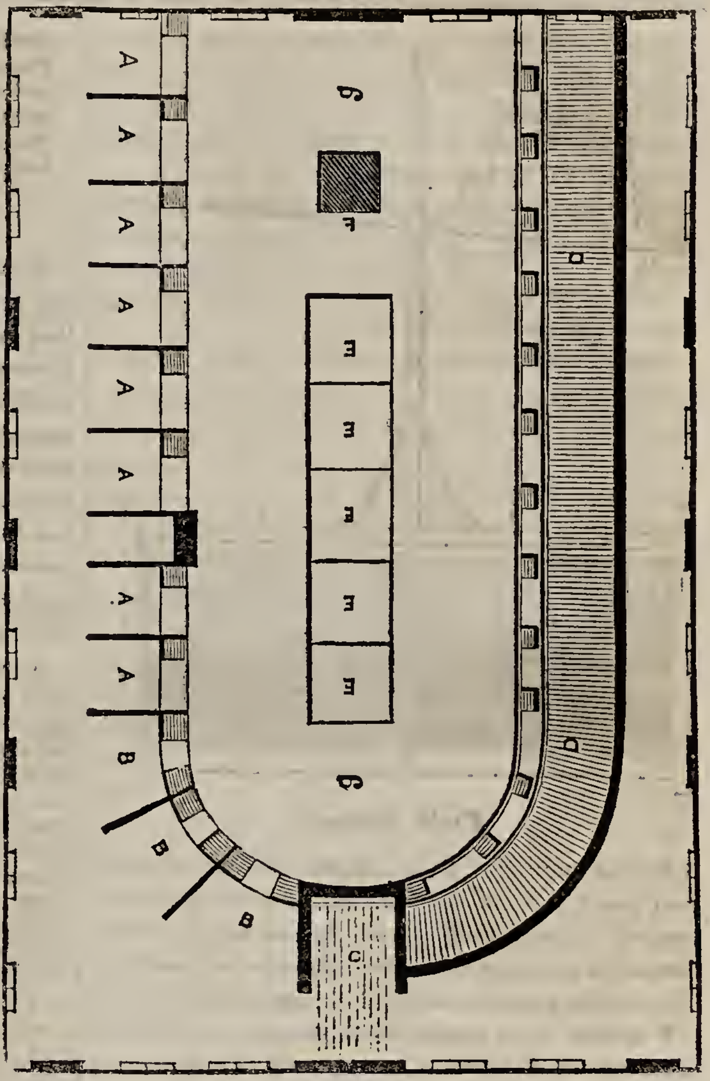
3. Quality of Seed—Some of the choicest kinds of potatoes at the present time are more inclined to rot than some of the meanest and coarsest. Unless much attention be paid to cultivation, these choice kinds will soon become extinct, for a farmer who plants for a crop will soon only plant those kinds which will produce sound. I would advise the farmer to plant from those kinds which appear to stand the rot the best in his own immediate neighborhood, and not be captivated with the ideal reports of qualities of potatoes grown some 100 miles away. After determining to plant the soundest kinds of potatoes, let him select whole sets of a medium size,—a common hen's egg being a proper gauge. The smallest and the largest, although capable of producing well, are not, in my opinion, as desirable as even moderate sized seed. But under all and every circumstance, avoid planting cut sets, eyes and peelings. The fact that sound crops have been and are now produced from cut sets, is no more an argument in their favor, than a previous sound constitution, or a week's hopeful recovery, is any sign of a permanent cure of a consumptive patient. In Central New-York the "pale reds" and early "pink eye," are considered the least liable to rot, and the common "pink eye," "Philadelphias," and "Carter's" the most liable. For a general crop I would recommend the "pale reds," for early use the "early pink eye."

Sweet Potatoes.—A subscriber at Columbia, Arkansas, writes us as follows—"The best and most productive variety to cultivate here in this region (33° 20) we find to be the *Large Red Spanish*."

Profits of Orchards.—A distinguished agriculturist, who has 1000 apple trees, and intends to set out as many more, says that if apples will sell at 25 cents per bushel, they are his most profitable crop—and if they will not sell, they are the cheapest food he can raise for all kinds of animals.

Plan of a Barn.

From inquiries in your paper, as well as from personal observation, I am satisfied that the farmers generally suffer much inconvenience from the want of properly planned barns and stables The accompanying plan I take the liberty to submit to you, as economical and convenient The plan is not artistically drawn, but I guess can be understood. B. B. *Pittsburgh Pa.*



Basement Plan of a Bank Barn

Whole size, 40 ft. by 65 ft.

A. and B Horse stalls, 5 by 6 ft. with troughs and open box mangers—floor slightly inclined and paved.
B. Open stalls for transient horses.
C. Large entrance to feeding floor.
D. Cow stalls, 4 by 4, with floor inclining to the trench—which catches all dropings and the liquid manure
E. Grain boxes, 5 by 5, to which grain is conducted by cloth spout from the threshing floor above.
F. Steam tank—wooden, with a tight lid, fed with steam through a pipe from a boiler without, and with cut feed through a cloth or wooden conductor from the floor above.
G. The feeding floor—elevated about 14 inches above the stable floor, tightly planked, and supplied with hay, &c. from the mows above.

The doors and windows are numerous, for abundant light and ventilation; and the windows should be closed with glazed sash in the winter season. The horse stalls should be boarded only a part of the way up, and each upright supplied with stout pins for harness, &c. The cattle fastenings should be the upright stakes and clasps.

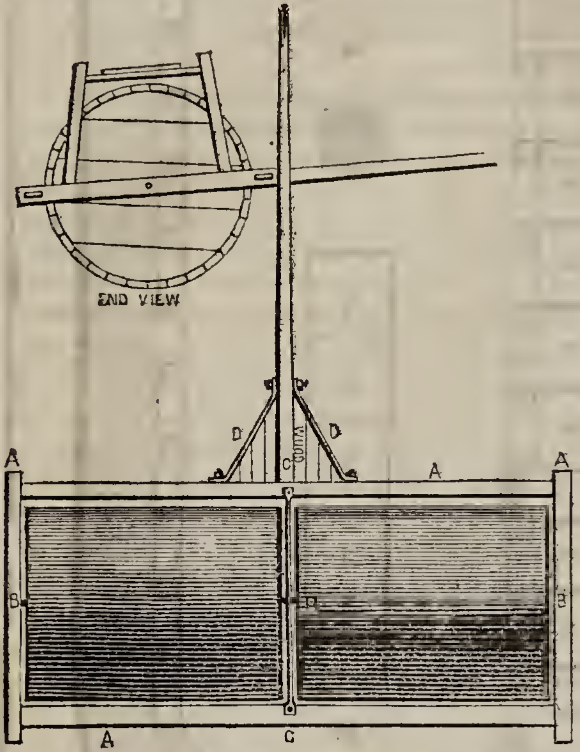
Great Crop of Corn.

Editors of the Country Gentleman—I send you a statement of my neighbor, Mr. Geo. Fowler's crop of *sowed* corn. The corn was sowed for the purpose of feeding his cows; but owing to the rapid growth, and partly for an experiment, he let it ripen. He says—"the ground consisted of two acres—had been 13 years in meadow—underdrained. I covered it with coarse barn-yard manure, twenty ox cart loads to the acre. Plowed very deep the 8th day of June 1854—then put 25 loads (of 30 bushels) of green manure, or that which was made from cows the past winter—spread it evenly over the surface—then harrowed it well both ways. Next I took a two horse cultivator and worked the ground until no manure was discernable. My seed was yellow corn, soaked in warm copperas water 48 hours. I then dried it by roling it in plaster, leaving it 48 hours—until I was ready for sowing, which was the 12th day of June, when the seed was much sprouted. I sowed it with a machine; the rows were 30 inches apart, and the seed dropped in drills two and a half inches distant. It was up in 4 days. It continued to grow rapidly. I run the cultivator twice in each row, and hoed it once. I had on the two acres, five hundred *shocks;* each shock averaged one bushel of ears; and the stalks weighed after being husked, forty pounds. The corn is worth 87½ cents per bushel—the ears short but very sound. The stalks worth 12 cents a shock."

To some this may appear as rather a "corn'd story," but the facts can be substantiated. Respectfully yours, Storrs Barrows. *South Trenton, Oneida Co., N. Y.*

Raising Calves.

Friend Tucker—Some inquiries being made as to raising calves, I give you my experience. I let them suck until they are two months old—halter-break them when one week old, and let them have as much milk as they will take twice a day until they are about four weeks old; then begin to wean them off by first milking one teat, and at the end of one week milking two teats, and so on until at last I give them but one teat once a day. As soon as I begin to wean them off, I commence feeding a few slices of carrots or some other vegetable, and induce them to lick a little corn meal, increasing the quantity as I deprive them of the milk. They will need the green vegetable, no longer, after they can procure grass. I always provide them with a small wisp of hay as long as I keep them up. To succeed well, and raise a fine animal, they should have from half, to a pint, of meal once a day, until they are turned out to grass at one year old. They should also be carded once a day at least, during the time of stabling. G. W. Durant. *Rensselaerville.*



Field Roller.

EDITORS COUNTRY GENTLEMAN—In a recent No. of your paper, you ask for information as to a good method of making field rollers. I had supposed that farmers in your section of the country, would, ere this, have had in general use the most improved kind.

I enclose you a rough pencil sketch of the plan of one I had made to order last fall, by Mr. Bowen of Montgomery, Hamilton county, O., who makes them only to order I believe—price $25.

I think the plan a very good one, but having as yet but little experience in field rollers, I am not prepared to express an opinion as to its comparative merits. The advantage of having double rollers is, that in turning, the two, by their forward or backward movements, accommodate each other, and thereby prevent the scraping that a single roller must produce.

I have often thought that for pulverizing hard cloddy soils, a roller or crusher made on the above plan, with the addition of strong wooden pins of proper length, inserted into the surface of the cylinders, would be very efficient and useful, after operating with which the use of the ordinary roller, or perhaps the harrow and then the roller, would leave the soil in fine condition. W. C. PINKHAM. *Loveland, Clermont Co, O.*

EXPLANATION.

A. A. A. A. Oblong frame, made of 4 inch stuff.

B. B. B. An iron rod, made fast in the end pieces of the frame, and passing through the rollers, serving the purpose of an axletree on which the rollers turn.

The rollers are made of oak, the heads being one inch plank doubled, on which are nailed staves of three inches in width and two inches thick.

Size of each roller, 4 feet long and 3 feet diameter. In the heads of each roller are inserted cast iron boxes in which the iron rod or axletree plays.

C C. An iron bar, about ½ or ¾ of an inch thick, passing between the two inner ends of the rollers, with a hole in it, through which the axletree passes, and twisted near the ends so that it may be bolted to the frame flatwise, on the upper side of the frame in front, and on the under side of the rear frame—the edge between the rollers perpendicular.

D. D. iron bars. In the end piece of the main frame, are inserted two posts, with a cross piece 5 or 6 inches from their tops, on which to place a board or plank, which may answer as a seat for the driver, or on which may be placed additional weights if required. These are not represented in the principal figure, but are shown in the "end view."

Culture of Millet.

MESSRS. EDITORS—In your *Country Gentleman*, you ask for information in regard to millet. During the past winter, I wished to know something more about the crop, and addressed letters to several individuals in relation thereto. I send you enclosed, two letters on the subject—one from A. Y. MOORE, Esq., the President of our State Ag. Society, and the other from S. M. BARTLETT, Esq., one of the Executive Committee, both superior farmers. I send you these letters as they are, considering them valuable, and because I have not time to re-write them. J. W. DICKINSON. *Hillsdale, Mich., March* 25, 1855.

Schoolcraft, Feb. 3, 1855.

J. W. DICKINSON, ESQ.—I received yours of the 29th ult. yesterday, and am happy to give you all the information I can in relation to the millet crop. It has, indeed, been a favorite crop with me, for the last five or six years. This year, I have less of it than usual and am very sorry for it. There is no kind of hay that my stock, of all kinds, prefer to millet, and if the land is rich, and it is well put in, and good seed, it produces well. I have had as much as four tons to the acre. After it is taken off in the fall, the land is in good order for wheat, by being once well plowed, not yielding quite so heavy a crop as a summer fallow, but quite good.

I will now give you my process. I plow early in the spring, at the time that I plow for oats or corn—harrow once—then after oats are sowed, corn planted, and other work done up, say from the first to the tenth of June, plow the ground again, harrow well, and sow about 12 quarts seed per acre ; harrow well again, and it should be rolled, in order to make a smooth surface for mowing. It comes up slow and fine, but grows very rapidly in hot weather, say July and August. It is fit to cut in September, when the seed is out of the milk, or pretty solid. It does not hurt by standing, even till frost comes, except that it loses seed. Some folks cradle and bind it in sheaves, but I prefer to mow it, and put it in cock green ; let it cure in cock ; it may want airing, but put it in cock again to undergo the curing process. If it should rain and get wet, open the cocks till dry, and put it up again. It is a very rich nutritious feed, in consequence of the abundance of seed, which all kinds of stock are fond of.

I am feeding, this winter, some drilled corn, which I like very much. I drill it in rows 3 feet apart, and 6 or 8 stalks to the foot. Cut it up, and put it in good shock when ripe, and let it stand till winter when wanted for feed. It keeps better that way than any other, and is much less trouble. A. Y. MOORE.

Lasalle, Feb. 1, 1855.

DEAR SIR—I take pleasure in answering your inquiries concerning millet.

1. As a green crop for soiling, it is scarcely equal to corn ; but still it is good.

2. For hay (cut when seed is half ripened), it is superior to any crop I have ever tried. May be made, on rich land, to yield from 4 to 6 tons per acre—excellent, when well cured, for horses ; they are particularly fond of it. Cattle prefer it to best timothy or clover. It should be carefully cured, being, from the extreme succulence of the stalk, very liable to mould in the mow. It should be cocked as soon as fairly wilted, (to prevent waste,) and allowed to stand at least four days ; then open it a few hours to the sun, before draw-

ing. The first sweat is thus disposed of, and there is but little danger of injury from rain, when put up green, as it packs closely.

3. The averaged quantity of seed I think should be 12 quarts to the acre. The richer the soil, the more seed when grown for hay. If sown thin on such land, it grows too rank and coarse. I have not tried it on poor land, or even light land, but am told it does well on such soils. I should prefer a good corn stubble, potato, or other well tilled land.

The millet shelled from a crop cut for hay, is not fit for seed—a portion of your field should be fully ripened for this purpose. I can furnish all the seed you want. I introduced this crop here. I am greatly pleased with it. If cut for hay, the mowing machine does it finely—for seed, use the cradle.

I have been feeding my entire stock on this kind of hay for the last fortnight, and all seem satisfied, even the calves. L. M. Bartlett.

Top Onions.

Messrs. Editors—I have several letters from your state within a few days inquiring about top onions. And to save work and letter postage to write to all, permit me to do it at once through your paper.

1. The top onion seed has the shape of an onion. Its bigness is from that of a kernel of corn to a dove's egg. The same onion may be set out for seed year after year. But if you wish to raise a large good onion to use or sell, plant the seed.

2. Sow the seed as early as you can work the ground They will have ample time to grow, planted in July; but like leeks they grow best in April. No matter how much snow falls on them or if the ground should freeze, it only seems, afterwards, to hasten their growth.

3. Plow your ground, put on the top, well rotted manure, sow on ashes, harrow or rake thoroughly, row it out about 8 inches apart, place your seed from two to four inches apart on the row, cover the seed a little out of sight, so that perhaps the first shower will bring many of the seeds a little in sight, tramp on the bed as much as you please while you are making and sowing, especially on the row after the seeds are sown.

4. After planting the seed, sow on common salt, which you can find in old fish barrels in the stores. When your onions are well up and growing it is well often to take ashes and plaster, and while it rains, or a little after a shower, throw it up into the air and let it fall in fine dust. A little will do.

5. Never hoe deep lest you should disturb the roots as they are very near the top of the ground.

6. Gather them as soon as the top is fairly wilted If you do not they will start to grow again and burst. Some tell us this kind of onions are tough and strong. But it should be known that the reason of that is, that they are left in the ground after they are ripe. Gardeners who have known them for 20 years write for seed and tell me they prefer this variety because they are *sweet*, *tender* and *juicy*.

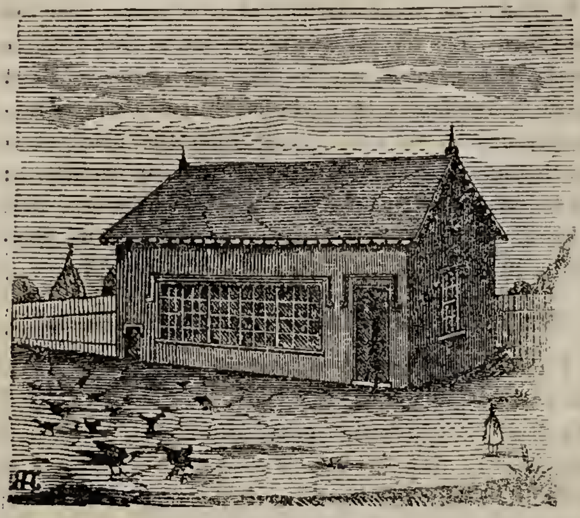
7. When ripe gather and keep them, both onions and seed, in a dry place. Never leave them on the damp cellar bottom. If you have planted them in season and as I direct, you may raise from 600 to 1000 bushels per acre. I often have them over a foot round.

8. The three great advantages over other varieties are these. The top onions are earlier, so that you can supply the market before *other* people have them grown. Another is, that you can hoe 14 times as many in a day as you can of those from the black seed. At the first hoeing you have no weeds; besides the blade [one] or spear is large and you can see the row. And the other reason is, that you will never be troubled with maggots. S. Morgan. *Bristol, Vt.*

Why Plaster is not Always Beneficial.

I understand plaster to be a sulphate of lime, i. e. the base is lime united chemically with sulphuric acid. My theory is that when plaster does no good, the soil has already its quantum of something analagous to sulphuric acid. For instance, on the sand lands about Dunning Street, in this (Saratoga) county, formerly plaster was the making of the farmers. It would then make every thing grow, and they have been wondering for a year or two back, why plaster did not make clover grow as it used to. Their fields are covered with sorrel, the plaster has furnished the soil with an *excess* of acid, and sorrel grows better than any thing else. Now the remedy I believe to be *lime*, which will unite with and neutralize this excess of acid, and afford the same fertilizing power as plaster formerly did, at much less expense. The farmers have only to procure common stone lime from the nearest kilns, or air slaked will do. On light soils, let the lime be slaked before applying, but on cold clayey soils, it may be beneficial to apply in the stone, and let it heat up the soil. It will loosen a heavy and lighten a sandy soil, and where it does not already naturally abound, is a necessary addition, especially if you want to raise wheat. It will stimulate *all* the crude organic elements to action; but it is important to remember that when you have put this stimulant into *light soils*, containing but little nutriment for plants, you must not expect its good effects to continue unless you feed your soil with manure, or muck, or leaves, or something else; no more than you would expect a hungry man to keep on working without food. But draw on your chip dung, muck, leaves or other stuff, and your lime will continue to keep it at work to the best advantage, for years. Putting on the lime gives the *appetite* and strong *digestive powers*. It will eat anything, but cannot work on with nothing long. Your hungry man will soon be worked out, without food; but don't give him the appetite and good digestion, and work him hard and then refuse to feed him. If any body has a better theory let us have it. H. Van Ostrand. *Rock City Mills, N. Y.*

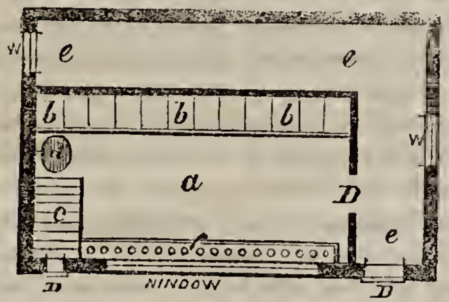
Peruvian Guano, *vs.* Superphosphate of Lime for Oats.—The *Southern Planter* gives the results of some experiments with oats. 200 lbs superphosphate gave 704 lbs. of oats 200 lbs. of Peruvian guano produced 1556 lbs. At 35 lbs. per bushel this would be, with superphosphate 20 bushels: with guano 44 bushels per acre. We are sorry the yield, *without any manure*, is not given.



Poultry House.

A correspondent of the *People's Journal*, furnishes the following plan of a Poultry House :

Fig. 1, is the exterior, fig. 2 the ground plan ; *a* is the feeding room, *b*, *b*, *b*, the nests, *c* the passage to the roosting-place, which is up in the loft above, *f* the feed box, the top of which is hung with hinges, and holes cut in the top, which enables the fowls to feed at leisure and not to waste their feed ; the box or trough can be filled up, which will last them several days ; *e*, the passage by which the eggs can be removed from the nests without disturbing the fowls ; each nest is to have a small sliding door into the passage-way, by which means you can readily get at the nests. A house of this description 8 feet wide, by 12 feet long and 8 feet high, will accommodate from 50 to 60 fowls.



The best situation for a house of this kind, says the *Journal*, would be in a bank fronting south, and by this means you can have fresh eggs all through the winter, for if fowls are well sheltered from the cold and storms, and well fed, they will continue laying all the winter; the floor of the feeding room should be kept covered with sand, pounded oyster shells, and lime ; you may also have a yard in front, with a high picket fence around it, by which means you can shut up your fowls at pleasure.

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Best Fowls—Large Eggs.

Messrs. Editors—I have raised within the past few years, almost all the large varieties of fowls ; but I have found none that suit me as well as the cross with the Jersey Blue and Shanghai. I think they are unsurpassed by any, either for laying, setting, brooding, or table use. Some of my last spring pullets weigh from 7 to 9½ lbs. If any readers of the *Country Gentleman* have tried the above cross, I should be glad to hear from them.

Hold on Madagascar, and let Ohio speak—I have two specimen Shanghai and Jersey Blue eggs. The measurements - of the one, 8½ by 6⅝ inches—of the other, 8 by 6¼ inches. H. S. *Greenfield, O.*

An Honest Word about Chittagongs.

Messrs. Editors—In answer to the queries of J. W., allow me to give my experience in the matter May, 1853, saw me the proud possessor of two coops of Grey Chittagongs, just arrived from *the land of wooden nutmegs*, from celebrated dealers whose names are not unknown to the columns of the Cultivator. One coop, I was assured, were sent at a rate below the market price, and was politely requested to make up the *balance* by way of a "puff" in some agricultural paper. My pleasure was enhanced, on waking the next morning, to hear the two cocks crow a *race*, making a noise somewhere between the braying of a jackass and the bellowing of a mad bull, and rivaling the cackling of the geese that foretold the downfall of Rome. The hens will lay about thirteen eggs to a litter, and then they are *bound* to set, right or wrong. The weights given by J. W. are fair weights for this breed. From four to ten weeks old, the chicks are mostly destitute of down or feathers, looking as if prepared for the pot, and a cold rain makes sad havoc among them. The first six months they run to *legs* and *bones*, are very poor and blue, with so tender a skin that it is next to impossible to dress them fit for market. In fact, their *long, bony legs, gaunt, blue bodies*, and *torn hides*, make a sorry show. They are voracious eaters, one requiring as much as two common fowls, and being essentially a lazy animal, and opposed to the locomotive tendencies of the age, are good for nothing to hunt their own fodder. But when winter

> "———holds the sun
> A prisoner in the yet undawning east,
> Short'ning his journey between morn and noon,
> And hurrying him, impatient of his stay,
> Down to the rosy west"—

Then, on account of their thin covering of feathers, and long, fleshy toes, will *they suffer* and their *owner lose* most severely. Toes freeze and come off, leaving a leg and stump of a foot which resembles Powhattan's war club as seen in Barnum's museum. Being a tropical bird, perhaps they are not fully acclimated, or do not find their proper food here ; be that as it may, it has been observed that they thrive here best during the prevalence of a certain kind of *bug* not mentioned by naturalists. Vermonter.

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Treatment of Roup.

Roup is the most obstinate disease we have to contend with. It in most cases attacks fowls from October to April. The first symptoms are a difficulty in breathing; then a weeping at the eyes, together with a swelling of the head ; a discharge of fœtid matter from the nostrils ensues, and the fowl pines away and dies, unless taken in hand on the first appearance of the disease. Many are of the opinion that it is very contageous. Those affected with it, should be removed to a warm, dry, ventilated room, and treated as follows : Squeeze each nostril out by pressure with the thumb down towards the beak, which will remove all the discharge ; then sponge the head with assafoetida dissolved in vinegar, and squeeze a drop or two in each nostril, and finish by *tarring* or well greasing their heads from above the nostrils back to the top of the head, and keep them tarred until relieved. One or two applications will generally suffice. Finally, it is best to kill the fowl if it does not recover immediately. Jonathan Ramsey. *Middletown, Conn.*

Alderney Milk.

Messrs. Editors—The communication of Mr. Prentice, in your paper of 1st inst., has led me today to weigh the product of 163 lbs. 14 oz. *Alderney* milk, and the result is 13 lbs. 14 oz. butter, or 1 lb. of butter for 11¾ lbs. milk. This is a fraction more than from the *Ayrshires*. The manager of my dairy had not seen Mr. Prentice's communication, nor did he know my object until the result was ascertained.

During the cold weather, in addition to hay, my cows are fed daily with from 1 to 3 quarts of *bran* each, in warm water. I do not think this adds to the weight of the milk, but it probably does to the quantity, and it certainly tends to keep them in good health.

The result both with the *Alderneys* and the *Ayrshires*, is more favorable than I had supposed. I have always, when inquired of, replied that about 7 quarts of milk or 14 lbs. in weight, would produce a pound of butter.

I send a specimen of the butter made to day for your inspection. John T. Norton. *Farmington, Conn., March* 19, 1855.

Mr. Norton will please accept our thanks for the above, as also for the box of beautiful and delicious butter which accompanied it. It will be seen that the product is a trifle more than in the case of the Ayrshires heretofore reported by Mr. Prentice; and both statements fully substantiate all that has been said in relation to the richness of milk from these breeds of cows.

Food for Ewes and Lambs.

I would inquire of you through the Cultivator, what I shall feed to sheep to make them give milk. I have lost a number of lambs this month. My sheep did not give any milk, and they would not rear the lambs. I have fed them oats and corn through the winter, until they began to lamb, and then I fed them potatoes. Now can you tell what is the best feed to make them give the most milk? If you can you will oblige Wm. E. Wheeler. *Warren, N.Y., March* 26.

When sheep have been well wintered as yours appear to have been, we have rarely found any trouble from a deficiency of milk. The severe weather of the past month has probably had much to do with your difficulties. When a ewe has yeaned, she should be immediately separated from the rest of the flock for a few days, and she will then seldom or never disown her lambs. When ewes have couples, they will frequently disown one of the lambs, but by placing them in a pen by themselves and holding the ewe while the discarded lamb sucks, for a day or two, she will take to it. Good hay, shorts, cabbage, mangel wurzel or ruta bagas, as you may chance to have them, are the best food for ewes. Unless lambs are raised for the butcher, it is best not to have them come till there is a good bit of grass for the ewes. We have never found any roots or grain that would make as much milk as good grass. Rye is frequently grown in England as a green food for ewes and lambs in the spring: but we do not approve of the practice. It is on the wane in Great Britain, on account of its exhausting effect on the soil. Cabbage, in our experience, is better than ruta bagas, mangels or beets, for ewes and lambs. In fact we know of nothing, except grass, that will produce so much milk, or at least that enables the ewes to support their lambs so well. Will our correspondents give us their experience in regard to the inquiry of Mr. Wheeler.

Diseases of Cattle.

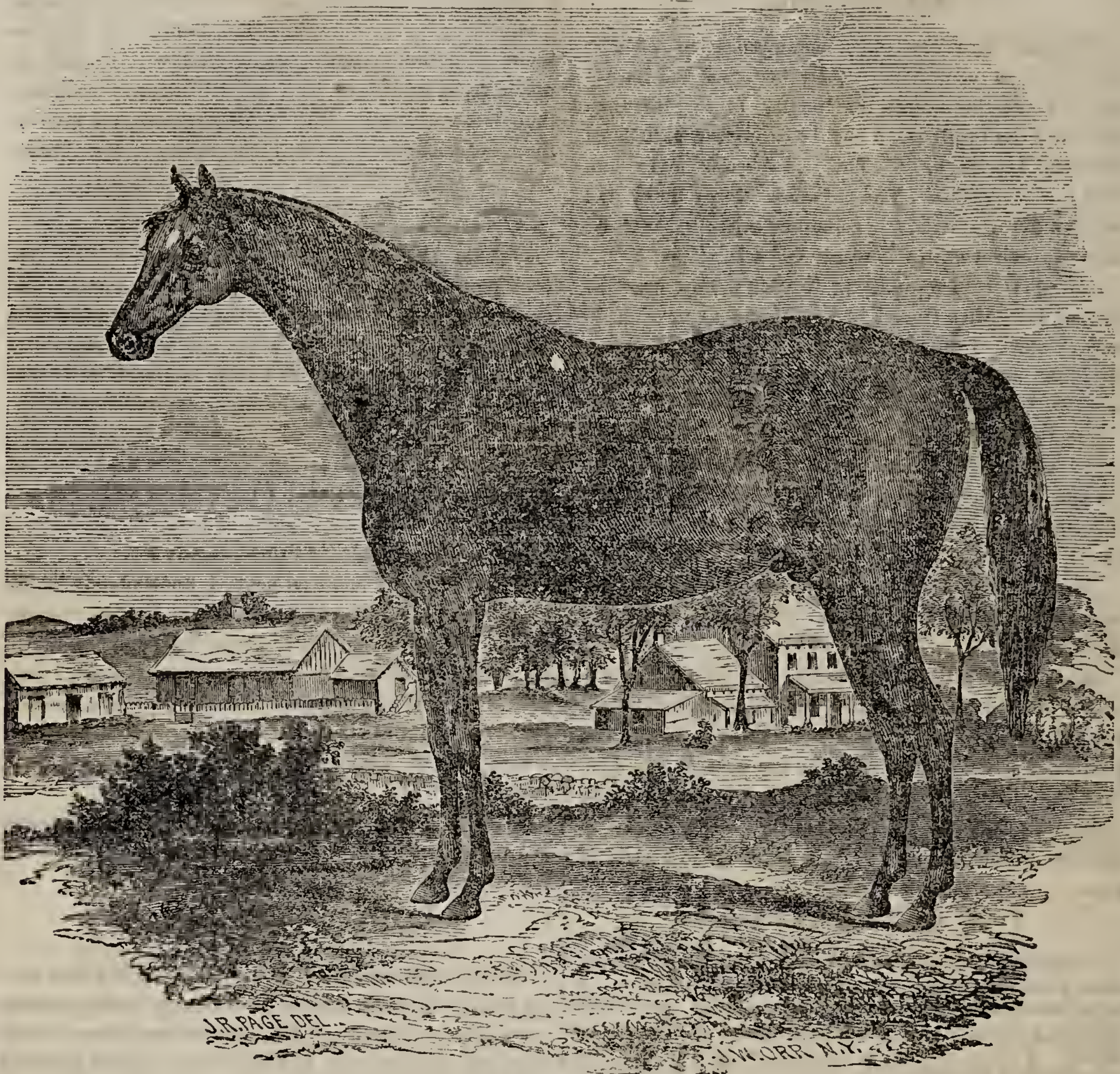
Messrs. Editors—I suppose that information respecting disease in domestic animals, extending to the cause, prevention and cure, is not inappropriate to the design of your paper. I have a cow whose stale has for some time past exhibited more or less of a bloody appearance, the disease seeming to increase in severity, and will I apprehend, if not removed, eventually cause her death. She is evidently declining in flesh, and her milk has nearly dried up. I have never had or seen a case like it. Can you or some of your correspondents direct to some simple and sure remedy?

I would further inquire, do you know of any really good book that treats of the diseases of stock—plain, simple and cheap, and at the same time clear, comprehensive and efficient? Every owner of stock needs such a book, if the thing exists, and you will be entitled to our thanks if you will inform us what it is, and where, and at what price it is to be had. E. S. F. *Gilsum, N. H.*

Dadd's "*American Cattle Doctor*," comes nearest the requirements of our correspondent of any book we are acquainted with—price $1.

How to Raise Calves.

Messrs. Editors—March is a month in which many cows drop their calves, and March calves are the very ones to raise, provided they are good ones, "for a good cow may have a bad calf," but a good cow will be more likely to have a good calf, than an ordinary cow. My practice is, to let the calf have what milk it will take for the three first days of its existence; then allow it to suck one-half of the milk until it is three weeks old; by this time you can decide upon appearances whether it has such points as you desire in an animal of that age; but if the calf is doomed for the shambles, give it all the milk for two or three weeks more, and it will find a ready market; but if to be raised, continue to allow it one-half of the milk until it is eight weeks old, during which time it can be learnt to eat a half pint of meal a day, with a little fine hay; then it will do to confine the calf to one teat, with an increase of meal; and at the expiration of three months, it will do to deny it milk, provided you supply it with a suitable quantity of meal and good hay, or grass, three times a day, and what water it desires. Do not turn the poor calf out to shirk for itself, in a poor pasture, but give it a good stable, that can be made dark during hot days, to prevent the flies from tormenting the creature, and save it from the rays of a vertical sun, which it will avoid if possible. The last of September, if you have good aftermath, turn your calves on to it, and with plenty of pumpkins through October and November, with a regular supply of hay and roots the following winter, you may rationally expect to show as good a yearling, when March comes round again, as your neighbors. S. D. Walbridge. *North Bennington, Vt.*


J.R. PAGE DEL.
J.W. ORR N.Y.

Monarch.

This celebrated horse was bred by his late Majesty William IV. at the Hampton Court stud in 1834, and imported by Col. WADE HAMPTON of South Carolina. He was by Priam out of Delphine, &c. &c. Monarch was exhibited at the last New-York State Fair, and received the first prize as the best thorough-bred horse. He is now owned by Col. L G. MORRIS of Fordham, and is to be kept, as will be seen by an advertisment in this paper, at Mr. M.'s Herdsdale Farm, the ensuing season

National Sheep Show.

At a public meeting recently held at the village of Bath, Steuben Co., N. Y., a "Wool Growers' Association of Western New-York" was formed and a constitution and by laws adopted. The Society have resolved to hold a "National Sheep Show" at the village of Bath on the 29th, 30th and 31st of May 1855. The following is a list of the premiums offered.

FIRST CLASS.—Sweepstakes Pen. best 10 fine wool Ewes, $75. Best fine wool Buck over two years old, $50; 2d do, $40; 3d do, $30; 4th do, $20; 5th do, $10.

Awarding Committee—Wm. Wheeler, Wheeler, Steuben Co.; Hector Hitchcock, Conesus, Livingston Co; J. L. Monier, Naples, Ontario Co.

SECOND CLASS.—Best five Ewes with Lambs, fine wool, $30; 2d do, $20; 3d do, $10. Best five Ewes two years old, $20; 2d do, $15; 3d do, $10.

Com.—Alex. Arnold. Avoca, Steuben Co.; Wm. D. Dickinson, Victor, Ontario Co.; —— Chilson, Pavilion, Wyoming County.

THIRD CLASS—Best five Ewes one year old, fine wool $20; 2d do, $15; 3d do, $10.

Com.—Solomon Hitchcock. Conesus; Calvin Ward, Richmond, Ontario;—— Galentine. Rush. Monroe.

FOURTH CLASS.—Best Buck two years old, fine wool, $30; 2d do. $20; 3d do. $10. Best Buck one year old, fine wool, $20; 2d do, $15; 3d do, $10.

Com—Loomis Bunce, Milo. Yates; C. D. Champlin, Urbana, Steuben; Nathan Squires, Penn Yan, Yates.

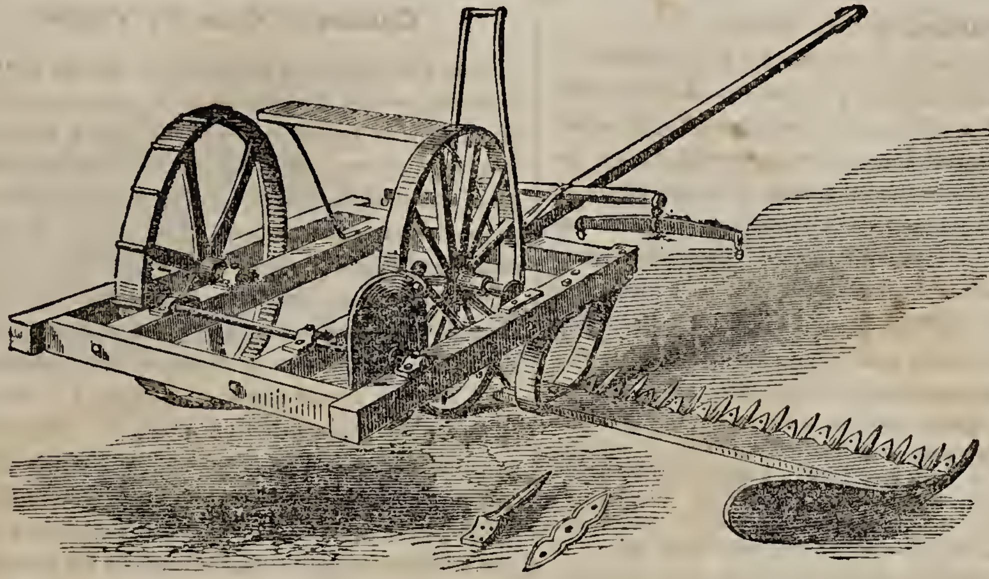
No Sheep will be allowed to compete for more than one premium except in the Fifth Class.

FIFTH CLASS.—Best single Ewe, fine wool, $10. Best 3 Ewes, fine wool. $15.

Com.—Daniel Gray, Wheeler; Wm. A. Cook, Lima, Livingston; G. H. Wheeler, Wheeler.

This Class may be drawn from any of the foregoing pens.

Any person may become a member of the Association by the payment of $1. The following are the principal officers for this year:—*President*—WM BAKER, Urbana; *Cor. Sec'y*—WM B. MCKAY, Bath: *Rec. Sec'y*—ROBERT B. WILKES, Bath; *Treasurer*—Hon. REUBEN ROBIE, Bath. There are also thirteen Vice Presidents and several Corresponding Secretaries.



Russell's Mowing Machine.

In the last volume of the Country Gentleman, we gave some account of the peculiar construction and advantages of this machine. The above engraving, however, will enable our readers to obtain a clearer conception of its design, and to form their own conclusions of its merits. It consists of a square frame mounted on two wheels, —one, a heavy cast-iron wheel from which the power is derived, the other a light one, placed on the opposite side of the frame, and a little forward of the main wheel. The object of this second wheel, is to prevent the knife bar from dragging too heavily on the ground, and to alleviate the side draft. In connection with this inner wheel, is an apparatus whereby the driver can raise or depress the knife bar at pleasure. *The vibratory motion of the knives is obtained by means of a cam wheel*, placed on the same shaft with the pinion connected with the main wheel. Each knife is placed upon the knife-bar independent in itself, moving on a center pivot by means of an iron rod passing under, and attached to the back end of the knives, giving them an oscillating motion, and effecting a drawing, circular cut. The knives are *double*—that is, they have a cutting edge at each end, and by removing the cap which secures them in place while at work, any one can be removed and another substituted in its place, or the ends can be reversed, when one edge becomes dull.

The machine is made for one or two horses, the former cutting a breadth of three feet, and the latter from four feet four to four feet eight inches. Trials were made with it last year in this and other states, and it appears to have given very general satisfaction.

Value of Stable Manure.

Can you inform me how many tons of the best stable manure, from *grain fed horses*, is equal to one ton of best Peruvian guano? It is probable this, or a similar question, may have been frequently answered, but I am unable to find it in any of your valuable publications. Robert Watson. *St. Stephens, N. B.*

The value of stable manure depends on the composition of the food consumed by the animals, and on how much of the liquid excrements is retained, and on the quantity of litter used, besides other circumstances too numerous to mention. It is, therefore, difficult to get at the average value of stable manure as compared with Peruvian guano.

The value of stable manure as compared with itself, is in proportion to the ammonia it contains, for the more ammonia it has, the more phosphoric acid and other valuable mineral substances does it contain. Some will question the truth of this statement, but it is nevertheless true as a general rule. As compared with Peruvian guano, the chemically fertilizing value of stable manure may also be estimated by the ammonia it contains, since the guano contains nearly if not quite as much phosphoric acid in proportion to the ammonia, as the best stable manure, and the *availability* of the elements of the guano, is in our opinion a full offset to the other mineral matter of the stable manure.

A ton of "farm-yard dung," according to Boussingault, contains nitrogen nearly equal to 10 lbs. of ammonia; that from an "inn yard" 19.2 lbs. of ammonia More recently, from several analyses, Lawes & Gilbert found a "ton of rich box manure" to contain 5½ cwt. of dry substance and nitrogen, equal to 20 lbs. of ammonia, while another sample, composed principally of rotted straw, contained nitrogen equal to only 5 lbs. of ammonia. A ton of liquid and solid excrements, free from straw and other adventitious matter, from a horse fed with oats and hay, Boussingault found to contain nitrogen equal to 13½ lbs. of ammonia, and 78¼ lbs. of mineral matter.

From these data, which are perfectly reliable, our correspondent can draw his own conclusions. A good Peruvian guano contains 16 per cent of ammonia, or a ton would contain 320 lbs. If all the liquid excrements are saved from your "grain fed horses," and little litter is used, and the manure heap has not been reduced by fermentation; in other words, if your stable manure is fresh, it probably contains about as much ammonia as that analyzed by Boussingault—13½ lbs. per ton. The figures, then, lead us to the conclusion that 23¾ *tons of fresh stable manure from grain fed horses, is equal to one ton of the best Peruvian guano.* By judicious fermentation, a considerable quantity of carbonic acid and water may be driven off, and the residue be left with a larger proportion of ammonia, in which case a fewer number of tons would be required to equal a ton of guano.

Culture of the Potato,

As recommended and adopted by E. C. Roberts.

In order to raise healthy potatoes the seed root must be healthy. If we follow the laws of nature, we would say let your potatoes remain in the ground during the entire year, instead of storing them in your cellars for five or six long months. It is strongly contended that the disease commences with the old tuber—that it undergoes a process of fermentation, and as a necessary consequence, the stalks wilt and throw off a very noxious and unwholesome gas. The cause of this disease seems to be a transgression of a natural law. Nature designed the earth as the place for roots, and man has made a great mistake in not allowing them to remain there but about half the year. Potatoes deteriorate rapidly in quality by keeping them out of the ground; and by adopting this course of culture for years, the root loses some of its component and vital parts, so that, in the course of time, it has become enfeebled and lost its native vigor.

Mr. Roberts gives the following directions:

"To get seed roots, select one fourth acre of arable land, (on which water will not stand) on an eastern slope, new land is the best for this use, fit early in the spring; furrow four or five inches deep, and two feet apart. Select seed roots that are about the size of a hen's egg, that have touched the ground during the previous winter. Do not cut them; drop one every six or eight inches apart, in the furrows; cover them by filling the furrows, and then put a top dressing of two inches of straw, or forest leaves on each row. When the tops are two inches high, pass between the rows with a shovel plow; follow with a hoe destroying the weeds, and levelling the ground; do not hill. You have nothing more to do until fall, when the ground begins to freeze; then cover with half rotten straw, chaff or forest leaves, three or four inches deep. Your potatoes will now have a chance to ripen and rest during the winter.

I shall now direct you in planting for culinary use, next season. The spring following, before your potatoes sprout, you will plant another seed patch, as above directed. You will now take the residue, and plant a field crop for culinary use. Plant in drills, four or five inches deep, and three feet apart; drop a potato every eight or ten inches, cover by filling the furrows; cultivate or hoe twice. In this way you will get the greatest yield, and best quality. Continue a similar practice from year to year, and from my own experience, I believe you will find your potatoes yearly increasing in yield and quality.

The third year you may increase your field crop, by plowing in fine manure. You have now had nature's course pointed out to you; her laws are truths; and I humbly believe, I have given them a just exposition. All who follow my directions, will the second year, see many seed balls, on the vines in their seed patch. These may be planted in the fall as I have done, and cultivated carefully, and good will undoubtedly result from it, if pursued in nature's own way. The potato will grow wild in our forests if planted in them, and thus save those the trouble, (who wish to get the wild root,) of resorting to their native forests in South America. Finally, we may apply nature's laws profitably to most other products. Seed of every variety, should be fully matured, i. e. not harvested until fully ripe. That which approaches the nearest to perfection should be selected for seed, and all roots for seed purposes, should remain in the ground, where they grew, until they bear seed; this course will make the seed mature earlier, and make it the most perfect of its kind."

I consider Mr. R.'s theory of great importance. I shall thoroughly try it, and hope others will. J. W. Dickinson. *Hillsdale, Mich.*

Culture of Corn for Fodder.

Eds. Co. Gent.—I followed last spring, your directions in sowing a small piece of land to corn fodder, and this year I shall sow a much larger piece. I fed it green to cows. It is my opinion that a greater and more valuable burden of fodder can be obtained in this shape, from a given quantity of land, than in any other form, and I would advise all farmers to try a small piece near the barn, to cut and feed to milch cows during the hot weather, when pastures are so apt to dry up and become as brown as the roadside. This kind of feed seems peculiarly adapted to cows, from its succulent and saccharine qualities. My cows used to eat it so clean that frequently no vestige would be left to indicate that the animals had been thus fed. Twenty-five square rods of corn fodder, gave me fodder every evening during four weeks for 3 cows, when the drouth had almost entirely cut off the supply of grass in the pasture; yet my cows were kept in good condition, and fell off but very little in their milk beyond what might naturally be expected in hot dry weather. Where pasture for cows is limited, nothing can so well supply the deficiency as a piece of corn planted for fodder. As to curing it for dry fodder, I have no experience; but presume it can be done with advantage by a careful hand, guarding particularly against the liability to heat when it is gathered in quantities. For horses that are kept during the summer, I should think soiling with green corn would answer well. Hogs will eat with great relish, and I should think profit, the leaves and stalks thrown into the pen. H. L. Young. *Po'keepsie.*

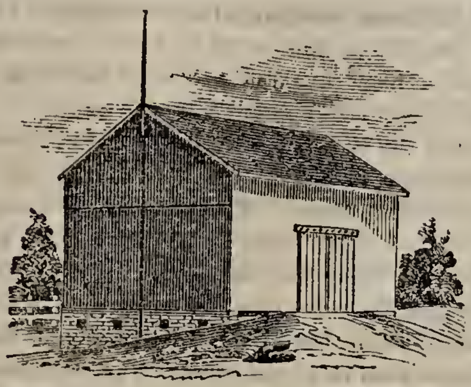
Rolling Fields.

Messrs. Editors—I was formerly in the habit of rolling my fields after the manner you recommend on page 165; but having devised what I think a better way, I will give it for the consideration of the brotherhood.

My plan is to commence on one side of the field, running at right angles with the lands as they were plowed, to the opposite side, turning the roller so as to describe a semicircle, whose diameter shall be four times the length of the roller, being about as short as an ordinary log roller will turn easily; then pass across the field parallel with the first track made with the roller, surrounding a strip (if the roller be, say eight feet,) of about two rods—pass back on the opposite side of this strip and next to the first track, turning at the end as before, which will bring the roller on the opposite or field side of the second track, and so on until this strip is finished, which will have doubled its original breadth.

Proceed in like manner with the balance of the field, finishing by rolling once round on each headland. This method allows of easy turning at the ends, being always the same, and crossing the lands does the work more perfectly than rolling with them, as must be the case with half the field in going round it.

This method is much easier shown than described, but I think any one who may wish will be able to comprehend it on trial, and will also be satisfied of its superior advantages. C. *Amsterdam, N. Y.*



Side-Hill Barn.

Mr. Tucker—I noticed in the *Country Gentleman* recently, that a correspondent wishes a plan for a side-hill barn, with threshing floor on a level with the entrance, 10 feet above the ground floor. Now I would advise him to build his barn broadside to the hill, for the reason that it will be less expensive and more convenient. If he should approve of the suggestion, I will offer him a plan.

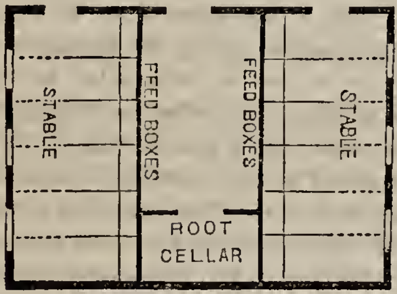


Fig. 1.

Fig. 1, represents the ground plan, 44 feet long and 32 feet wide, 10 feet high—one stable on each end, 14 feet wide, which will give a feed manger 3 feet wide, and a good wide passage in the rear of the animals also; divided into 6 stalls 5⅓ feet wide, each will stable 12 animals, which are to be fed from a space corresponding in width with the manger, on a level with the floor, as will be seen in the floor plan Fig. 2. This space for feeding from the floor, is made by leaving a space 3 feet wide at the bottom of the bay on a level with the floor, and inclines towards the floor to a bay beam 6 ft. high from the floor, so that the space abstracted from the bays is but little. This space can be closed or opened at pleasure by having doors to swing down to the floor when open, or to shut towards the mow when required to be shut, as will be seen in Fig. 3. [We prefer hanging these doors by hinges at the top, swinging towards the bay, so that their weight shuts them, and pushing a fork of hay against them, opens them. Eds.] The dotted line at *a*, is the side of the bay, inclined, to show the manner of feeding from the floor, and then it can be closed at pleasure. It should be fastened by hinges about 2 feet high from the floor.

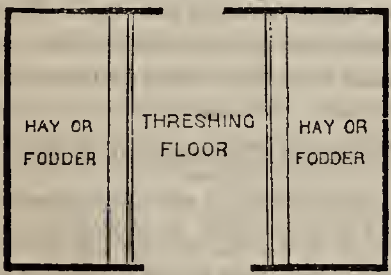


Fig 2.

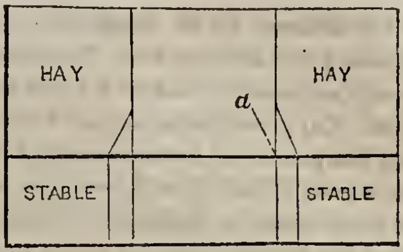


Fig. 3.

Having a barn nearly on the same plan, I thought it might please some of your numerous readers. B. D. C. *Red Hill, Fairfax Co, Va.*

Successful Plum Growing.

Mr. Tucker—In compliance with frequent solicitations, and in answer of repeated inquiries, I beg leave to introduce through your papers, my experience in cultivating the plum. What with black knot, curculio, and other natural causes to discourage the cultivator, it had become a settled matter of fact that plums could no more be raised in this vicinity. I attribute my success mainly to a hereditary strain of Yankee principle, producing a strong propensity to use a Jackknife. My trees are mostly grafted on to suckers of the native or wild plum, near or at the surface of the ground. The scions take well in such stocks, and grow strong, frequently from four to seven feet in a season. In the spring of the first year, I cut back to two or two and a half feet, and each spring following, from ⅓ to ⅞ of the last year's growth. This causes them to grow stocky, with low bushy heads, and to set thickly with fruit spurs. I have trees in different varieties of soil; some in cultivated, some in grass land. All do well. I manure with what is most convenient, without regard to kind or quantity, long or short, stable or hog manure, ashes, old lime, soap suds, fish brine, chip manure, or whatever is at hand, plowed in or for top dressing.

The great enemy of the plum tree is the black knot. Now comes the grand question—Black knot, what is it? Is it a disease, or the work of an insect? I will endeavor to answer these questions according to my observations. I consider it to be the work of an insect with which I have no personal acquaintance except in the maggot state.

From frequent observation combined with practice, I find that June is the time to look for the enemy. There are no black knots then, of this year's growth, but simply swellings upon the branches. Now use your jack knife, and you are sure of your foe. When these swellings first commence, so as easily to be found, the insect is the exact color of the excrescence, and so small as usually to escape detection. Nevertheless he is there. From the middle of June to the 1st of July, they are easily found, generally two in a knot, varying from 1-20 to 3-8 of an inch in length—the largest in the mean time are leaving their cells. I have found them near by, sheltered by the rough bark, covering themselves with a thin silk-like web. To all who wish to raise plums, (and who does not ?) I would say, here lies the secret. Cut green knots, instead of black ones. By following this practice, I have succeeded in raising very fine trees—not a black knot is ever seen on them. A swelling is occasionally found, but it is taken in time to secure the maggot. By this means the insects are reduced to that degree that my trees never suffer thereby. I have trees from 4 to 6 years from the graft, from 8 to 10 feet high, with large spreading heads, bearing the first season from 1 to more than 2 bushels per tree, of most splendid fruit, as many a satiated appetite can testify.

With your permission I may give in season, my experience and success with the curculio. C. S. *Shelburne, Mass.*

Peach Blossoms.

I take the following paragraph from the New-York Tribune :—

> The Peach Crop.—The temperature falls in Connecticut and Massachusetts to 12° to 15° below zero every few years, without injuring the peach crop. In 1834, at Windham, Conn., one morning, on the high hills the thermometer indicated 18° below, while on the plains and valleys it was 22° ; yet there were plenty of peaches the following season on the hills, and none in the plains and valleys. A year or two after, the temperature, one windy night, was exactly reversed. The next year there was not a peach on the hills, but a full crop in the valleys ; the tree-buds were not injured. Who will inform the public where the exact frost-line of the peach is ? Another question to the curious is, at what temperature the peach-tree is killed by frost. The writer thinks it at 30° or 32° below. G. W.

The temperature in this village on the morning of the 6th ult., was 26° below zero, and the next morning it was at 28° below. Since then, I have examined the blossom buds of the peach trees at different times, and found only a part killed. At present the prospect is there may be much fruit yet; and I can discover no damage on the wood. As there are two conditions that influence the effects of intense cold on the peach buds, no particular degrees of temperature will probably prove destructive in different seasons. Much depends on the *amount of development ;* for the blossom buds, *if not started at all*, appear to be as hardy as the leaf-buds, and both as capable as the trees, of resisting low temperatures. But the peach is a native of the Himalaya Mountains, and after having dropped its leaves, like some other mountain plants,[*] it begins to vegetate in the first warm air that surrounds it—whether that be in autumn, winter, or spring. Hence in this country the hills generally produce better crops of this fruit than the valleys. In many parts of New-York and Pennsylvania, the settlements were first made along the streams, the most unfavorable sites for the peach tree. In the same season that I saw a fine large one that had been winter-killed in Stroudsburgh, I saw another loaded with fruit on the high hills, far north of that place. These situations had been too bleak for the buds to start before spring had fully set in.

But when the buds have *started*, and the mercury sinks below zero, it may kill them, or it may not, according to circumstances. If warm sunshine[†] pours on them while in a frozen state, we should scarcely have any hopes of them ; but, on the contrary, if thick clouds prevent the rays from reaching them, and the temperature slowy rises up to the freezing point, very little danger need be apprehended. I have known the buds killed when the cold was about zero, and I have known them to survive when it was many degrees lower. The amount of development,[‡] and a clear or cloudy sky, explains all the causes of this difference. D. T. *Union Springs, N. Y.*, 3*d mo* 15, 1855.

Many accounts from different parts of Western New-York, where the temperature has not been as low as 12° below zero once in twenty years, represent the late intense cold as low as 20° below. But there is reason to believe that during the night it was considerably lower. At Lyons, it was observed to be 34° below, about midnight, and at Auburn 36° below, the temperature about ten o'clock in the evening being about the same as at other places where no midnight observations were made. As a *general* rule, liable to exceptions, as stated in the preceding communication, nearly all the fruit buds of the peach are killed when the cold is 12° below zero—such at least has been the result of our observations for many years. Throughout a large portion of the western part of the State, the *wood* of large peach trees has changed to a dark brown, and are generally believed to be fatally injured. Below the snow-line, the wood is fresh and white, and the depth of the snow at the time is thus precisely indicated. According to former experience, but few of these trees may be expected to sprout up near the roots, and new orchards must be planted. There is no doubt that the *long continuance* of the cold contributed largely towards the destruction of the *wood.* The *gradual rise* of temperature was favorable to the *buds*, and hence instances often occur where buds are alive where the tree is killed.

Planting Ornamental Trees.

Eds. Co. Gentleman—I wish to commence the improvement of a square field containing ten acres, by planting a belt of deciduous trees, say on three sides, with a view to converting it into a lawn, or park, and erecting a house in the centre, and using the ground as a pasture, ten years hence. Can you advise me what variety of seedling trees to plant, and how to arrange them ? D. *Cheviot, Ohio.*

Among deciduous trees, we would recommend the Sugar and Silver Maples, the American Elm, the Northern Magnolia or Cucumber tree, the "White-wood" or Tulip tree, the European Larch, the American Cypress, the Black Walnut, Chestnut, the Honey Locust, the White Ash, the Basswood, and a good portion of our best native Oaks; or any portion of the above. The exterior of the grounds, and especially in the directions from which the severer winds blow, should be freely planted with evergreens, such as Balsam and Norway Firs, Hemlock, White Pine, White Spruce, Silver Fir, American Arbor Vitæ, &c.

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[*] Such as the gooseberry and perhaps the mezereon, where the season of spring is scarcely known, and the transition from winter to summer is almost immediate. On southern plains, however, where cold blasts and severe frosts often succeed warm breezes, plants are more cautious in putting forth, and instances of this kind may be found in the persimmon and catalpas.

[†] Sunshine through a very cold sky, *when not warm enough to thaw them*, appears not injurious.

[‡] The blossom buds which are most developed, and consequently the largest, are nearly all killed, while the smaller ones have no brown specks in them.

The planting should be done after the *natural style*, for specimens of which, see some work on landscape gardening,* or examine the finest natural groupings in nature, or representations in engraved landscapes or views of residences. Avoid the blunder which some commit, of dotting the *whole surface* over with trees irregularly disposed, forming a *monstrous irregularity;* but leave openings, internally and externally where the best views will be.

If a fruit, flower, and vegetable garden, are desired, the grounds should be laid out and planted accordingly. An indispensable preliminary, is to make the soil deep and rich, after which good cultivation must be given the young trees in the earlier years of their growth.

Milch Cows and Calves.

A correspondent desires a few "seasonable hints on the treatment of cows at calving, and on the best method of fatting calves for the butcher." If the cow has been well wintered, and in a healthy condition, there is usually not much difficulty in calving. It is sometimes necessary to assist the cow, but as a general thing she does better left to herself. If she is long in calving and in great pain it is well to assist her by taking hold of the legs of the calf and pulling gently *when the cow strains.* If you pull too hard, and especially when the cow does not "strain" the legs will be pulled forward out of their natural position and the difficulty you seek to remove increased. The head should be advanced if possible as fast as the feet. After calving the cow should have some warm bran slops, and be carefully attended to. In England it is the universal custom to sprinkle salt on the calf in order to induce the mother to lick it dry. The first milk is usually drawn out of the bag before the calf is allowed to suck, and afterwards if the udder should become hard it is advisable to draw out as much of the milk as possible previous to letting the calf suck. The calf will then butt the udder and work at it till all the milk is drawn out clean. We have generaly found this to effect a cure. If not, rubbing and bathing with butter milk, or cold water and castile soap must be resorted to in addition.

When cows come in early, before there is any grass, and especially if they are fed on a bulky, innutritous diet, such as straw or corn stalks, they are apt to be troubled with costiveness. To prevent this there is nothing, that we have ever used, equal to mangel wurzel, and three or four pounds of oilcake meal per day made into a warm mash. Mangel wurzel are far more aperient than ruta bagas or potatoes, and oilcake much more so than corn meal or even than coarse bran. Every one who keeps a cow should have at least a few mangels or beets to feed out in the spring. The oil-cake and roots will pay in increase of milk, while the enhanced health and strength of the cow is clear gain, and will tell well in the milk-pail during the coming summer. We need hardly say that it is always of the greatest importance to *milk clean*, and to treat the cow with all gentleness, avoiding harsh words, and never resorting to blows. We do not know whether cows have or have not the power to "hold their milk," but we do know that a quiet, kind and gentle woman will get more mik from a cow than a crusty old bachelor. STEPHENS had doubtless this fact in his eye when he said, "For my part I never see a *man* milking a cow without being impressed with the idea that he is usurping an office that does not belong to him."

In "fattening calves for the butcher," we know of no better way than to keep the cows well, and let the calves have all the milk they can take. Much depends on their being kept dry, clean and quiet. They should *be tied up*. In suckling let the strap and rope remain on them so that they can be managed easily, and as soon as they have got their fill take them away and not let them run about. Give them a little clean litter every day, and they will not be troubled with lice; if they should be, a tea, spoonful of sulphur should be given once or twice a week. It will purify the blood and rid them of the parasite, but retards the accumulation of fat, and should be given only in case of necessity. It seldom pays to keep a calf over five or six weeks, as after this age unless the cow is very well kept it seldom gets as much milk as it can assimilate, and most people object to the labor of preparing skim milk and oilcake meal for fattening calves though for *rearing calves* nothing pays better. For the London market where calves from two to three months command a high price, fattening calves with linseed tea or oilcake meal is considered quite profitable

Fancy Pansies.

But few readers of the *Country Gentleman*, perhaps, are aware that there is such a thing as a fancy, variegated pansy. I had several varieties last summer, as follows, viz., Pale yellow, spotted on the edge with rich purple; bright yellow, edged and shaded with very deep orange-brown; yellow, upper petals edged with deep purple; deep crimson, upper petals edged with deep scarlet, lower petals edged with a narrow line of bright yellow; fine lilac, spotted and shaded with purple. These pansies were very large, many of them measuring 1¾ inches in diameter.

The seeds, from which these pansies were grown, were obtained of Messrs. HOVEY & Co., Boston, the package marked "Finest large Pansies." They were sown in May, in common garden soil. When large enough to transplant, a bed was prepared by taking out the soil eighteen inches deep; a layer of coarse manure was put in to the depth of 5 or 6 inches, and the earth mixed with fine well rotted manure, filled in and the bed completed. The young plants were then set in, one foot apart each way, and the whole kept well watered, and once a week with liquid manure. The result as described above. N. STONE. *Oswego.*

Inquiries and Answers.

Tile for Cement Pipes.—I am desirous of laying pipes or logs for bringing water to the place where I reside—have been reviewing your remarks, in answer to an inquiry, in the March Cultivator of last year, where you recommend embedding *tubular tile*, such as is used for underdraining, in water-lime mortar. I confess I cannot understand how these *tile* can be used to advantage, unless made *round*, or at least not to be made a *half* round like those used for underdraining. Can tile of 1½ or 2 inch bore, be procured. Or how would it answer to dispense with the tile and make the cement pipes in pieces of 4 or 5 feet in length,—and let them harden before being laid down. But then *is* there not a difficulty in fitting the pieces together and not have them leak. A. D.

The kind of tile recommended for bedding in water-lime mortar, to form a tight channel for water, is the kind which is now prefered to any other for ordinary drains, namely perfect tubular, or in *pipes* about 15 inches long. No skill would be required to encase those in a coat of the cement on all sides an inch or two in thickness. Such tile is now made by all manufacturers, and little else is used

Where cement pipes can be made without tile, especially if not more than an inch in diameter, they are doubtless best, and cheapest, but they require skill. Our correspondent will find some excellent practical directions on the subject on pages 175 and 221 of the last volume of the Cultivator.

Sulphate of Copper to Preserve Wood.—I have seen it stated in some of the papers, that wood soaked in a solution of blue vitriol, (1 lb. of vitriol to 40 lbs. of water,) will prevent wood from decaying when in the ground. Is there anything in it. Thomas Morse. *Fairfield, Vermont.*

We believe this solution has generally proved beneficial. Will those who have used it give their experience.

Multicole Rye.—*J. W. Patton, East Brook, Lawrence Co., Pa.*—D. P. Bigelow of Barre Center, Orleans Co., N. Y., raises considerable Multicole rye, and can probably supply your wants.

Compost.—I intend mixing horse and cow manure with pond muck as soon as the frost is out of the muck. How long should it remain in the heap before it is fit for use? What is the best method of making the compost? H. G. B. *Brookfield, N. Y.*

Madder.—A correspondent desires information in regard to the best mode of propagating and cultivating madder. Will some of our experienced readers give us an article on this subject?

Edgar Hiller. *Burnt Hills, N. Y.*—We know of no work on the cultivation of the willow to recommend you. There can be no doubt that, on low land, which is of little value for other purposes, the Osier can be raised with considerable profit. We can send you Guenon's Treatise on Milch Cows, bound, prepaid, for 75 cents.

Hop Culture.—It would gratify and much oblige me, and probably a great many of your readers, if some one who has for years been experimenting in order to determine the *best* way to cultivate hops, would communicate the information through your most valuable paper. A. F. Richmond, 2d. *Whitewater, Wis.*

Fence Posts.—Can you or any of your correspondents, give the best method of setting fence posts, where the rock is so near the surface of the ground as not to admit of digging the post holes more than a foot in depth. As I am desirous of constructing a picket fence around my garden, any information concerning this would be thankfully received. A. Subscriber. *Oswegatchie, N. Y.*

Salt and Roots for Milch Cows.—In Stephen's Farmer's Guide, it is stated that it is probably owing to the large amount of common salt in Mangel Wurzel and Turnips, that cows, fed exclusively upon them, fall off in milk, an effect likely to be aggravated by the additional use of common salt. Will your Philadelphian correspondent, who suggests the use of the latter, as a remedy for the unpleasant taste imparted to milk and butter, by turnips, have the kindness to inform us, whether he feeds exclusively on turnips, and whether he finds the quantity of milk affected by them? J. G. *Catonsville, Md., March 21st,* 1855.

Osage Hedges.—*B. W.* The Osage Orange has failed as a hedge in many instances—just in the same way that a corn crop would fail, if planted in a swamp, or in the middle of the highway. The same kind of false opinion has almost universally prevailed in relation to hedging, that has proved so detrimental to successful fruit raising; namely, that the trade may be learned without any apprenticeship, and that the trees will grow without any cultivation.

The first great error generally committed, is in planting the hedge around an enclosure, near the boundary fence, where it cannot be subjected to any proper cultivation, and where it is almost totally neglected. Would a row of corn or potatoes grow and flourish in turf, among weeds, and under a fence?

The second is, in not properly and successively shortening-back. Inexperienced hedge raisers "cannot bear" to cut down nearly to the ground, fine thrifty young plants already four or five feet high, and the consequence is, they are found to be thin and full of grass at the bottom after the hedges have grown several years, and when it is too late to remedy the difficulty without cutting the whole growth down to the surface.

A third error, not so universal, is a neglect of proper preparation of the ground. In the west, and where the soil is very rich, the young trees with good cultivation, will grow fast, but under other circumstances the ground must be made to partake of the character of good garden mould. If at all inclining to be wet, a tile drain may be put in under the proposed line of the hedge, and the upper portion filled with rich soil. Tender plants will always endure the cold of winter far better over a dry subsoil, than when subjected to occasional soakings. In some instances, it may be sufficient to raise by successive plowings, a broad flat ridge, (not so high but that it may be easily cultivated,) with an open ditch on each side formed by the furrow.

Muck Compost.—In answer to H. G. B.'s inquiry in last No. of Co. Gentleman,—place the yard manure and pond muck in alternate layers, of as much or more muck as manure, not over two or three inches thick each, and if thinner, the subsequent intermixture will be more easy and perfect. The heap should be a paralellogram, to admit intermixture with the plow and harrow. After lying 3 or 4 months, plow down and harrow the heap to mix and pulverize it, when it will be in perfect condition to apply to wheat or other autumn crops. The substances will not be sufficiently incorporated for spring crops, but it would do for turnips by early summer.

Tea Wheat.—Several correspondents inquire where Tea wheat can be obtained. Those who have it would do well to advertise, stating price, &c.

Turnips for Cows.—J. G., Catonsville, Md., asks me in this week's number of your paper, "whether he feeds exclusively on turnips." My cows are fed as much cut hay, of the best quality, morning and evening, in their stalls, as they will eat, and a fair allowance of second crop, or inferior quality of first crop hay, not cut, in their sheds at noon.

“ And whether he finds the quantity of milk affected by them.” In answering yes, advantageously I think, I may say that I am not able to answer from measuremont. But where I am sure of not being mistaken, is as to the condition of the animals at this season, or a month earlier than this, that have been fed with roots since Christmas, compared with animals kept on dry food. And as J. G knows, probably better than I do, the condition of a cow *now* has a good deal to do with her usefulness for eight months to come.

Another matter in feeding with baga, not so with the common turnip, is in the color it gives to butter—removing that very white look which winter butter is apt to have.

Having occasion to be absent from home with my family, from September to June, a few years since, I made before starting, an arrangement with a neighbor farmer, who has excellent butter, that he should carry my butter to market with his, and receive a commission on the sales On settling accounts, he told me he would have thrown up the bargain if I had not been so far off that it would not have been right to do so, because he found my butter interfered with the sale of his—it was so much yellower. That season I had grown only ruta baga. I. *Philadelphia, April* 7, 1855.

H. H., *Rockville, Ind.*—For reply to your inquiry in relation to Ketchum's combined mower and reaper, see reply to G. Lauderback, Co. Gent. for March 29, p. 199.

SCHUYLER GAGE.—*A. M. L., Huntington, Ind.*—Such has been the call for scions of this plum, that Mr. DORR has been unable for some time past to furnish them.

GROWING SEEDS.—J. C., of Niagara county, asks our opinion as to “ whether the business of raising garden and field seeds for sale, is profitable.” It is undoubtedly, where judiciously managed, profitable, as it costs but little more to grow good than poor seeds, while the former secure much higher prices. There is always a ready market for all choice field seeds; but for garden seeds, the market is uncertain, and arrangements should be made for their disposal before a farmer enters largely into their culture.

“ CANADA CLUB WHEAT.”—There probably has been more of the “ Canada Club ” wheat raised in Wisconsin the last two years, than of any or all other varieties put together. I think it the best variety of spring wheat that has yet been introduced here. It yields well, is heavy, and produces a good quantity and quality of flour. The “ Tea Wheat ” I have heard spoken of, but have not yet met the farmer who has raised it. A WISCONSIN SUBSCRIBER.

CARROT SEED.—Information is requested through the Country Gentleman, concerning the best method of cleaning carrot seed. J. .L.

PRINCE'S WILLOW —Can any of your readers inform me where to procure the “ Prince's Willow ?” a variety imported some years ago by Dr. GRANT. If I knew where he lives, I would address him on the subject. [Dr. G.'s address is Newburgh, N. Y.]

JAPAN PEA.—Having asked a question, I take the liberty of answering one propounded by J. W., in No. 12, on the subject of the Japan Pea, or rather Bean. I have cultivated it for the last three years, and have disseminated it from Canada to Texas. It produces abundantly in common corn ground, planted six inches apart in the row, and the rows from eighteen inches to two feet apart—wide enough to hoe or to use a small cultivator. When eaten a few times they are pleasant enough, but have very little flavor--better when mixed with other beans. Before cooking, they must be soakt ed at least twenty-four hours. They are inconvenien to use green, being so difficult to hull. Chickens are very fond of them, and hogs devour them with great gusto. I think they would do for a field crop sown broadcast in good soil. T. V. P. *Mount Carmel, Ohio.*

CORN PLANTER.—Will you, or some of the readers of the COUNTRY GENTLEMAN, inform an inquirer where he can get “ *Bullock's Patent Seed Planter?*” for what price it may be had, and does it succeed well as a corn planter? A. TUBBS. *Tyre, March* 20, 1855.

BEE MOTH.—Will some experienced person inform me through the CULTIVATOR, what will destroy the Bee Moth or worms; and what kind of boxes are best suited to prevent their depredations. B. N. WARNER. *Washingtonville, March* 19, 1855.

Extracts from Correspondence.

THE WINTER IN ILLINOIS.—We make the following extract from a private letter of Dr. J. A. KENNICOTT, Cor. Sec'y of the Illinois State Ag. Society, dated West Northfield, March 21:—“ We have had four snow storms here, in 8 days—and yesterday the mercury was down to 5° above zero, at sunrise. Last night, I judge it must have gone down to near 0—it was only 4° above, *after* sunrise! Most of the flower buds of the Peach were killed, long ago, and the *trees* have suffered too. This bright sun, after *such* nights, will be hard on them. Still, we have not had such *extreme* cold, as you in New-York—10° below 0, was our *lowest* mark, in February—8° below in January. But the Peach buds were a little started, in early winter; and great damage has been done our *nursery trees*, by the weight of drifted snow.”

EGYPTIAN RYE.—We have been raising a spring grain entirely new to this vicinity, called Egyptian rye. Its growth somewhat resembles barley, being bearded, and having short hollow straw; it separates from the chaff similar to wheat, is very productive, suited to light soils, and subject to no insect depredations. The berry is a little longer and narrower than wheat, and about the color of the variety called Soule wheat. We have used it for pastry and pancakes, and by the addition of more leaven than is used for wheat flour, it makes a very excellent and white appearing bread. It weighs from 58 to 60 lbs. to the bushel. A sample of this grain can be seen at R. H. Pease's Agricultural Warehouse. JAMES ARKELL. *Canajoharie.*

LIME TO KILL SORREL.—A correspondent says:—“ Should sorrel make its appearance to any extent in my fields I should regard it as an evidence that another dressing of lime would be advantageous. Whether sorrel really does denote an *acid soil*, I am not prepared to say, but I do know that on land that had, at regular and stated periods, received an abundant supply of barn-yard manure, sorrel made its appearance, and overpowered the grass. Since then, lime having been freely used, the sorrel has disappeared, and the land is very productive of grass. The practice of liming, it is true, may be carried to excess, but with many it is rather a sin of omission than of commission.”

WASHINGTON TERRITORY.—We have a letter from a subscriber, dated “ Olympia, Puget's Sound, Wash. Ter., Feb. 16th,” from which we learn that the winter on the North-west coast has been as remarkable for its mildness as ours has been for its severity. The farmers in this new territory seem to be as wide awake as their more southerly neighbors. They have procured an act of incorporation, and are about to organize a Territorial Ag. Society

Notes for the Month.

Award of Premiums to Agents.

According to our books the Premiums we offered to Agents for the largest amount of subscriptions for the present year, are due to the following gentlemen:

1.	Hiram Mills, Lewis county, for....	$209.62......	$50
2.	G. W. Durant, Albany county,.....	86.13......	45
3.	L. W. Curtis, Madison Co.,........	69.00......	40
4.	Geo. W. Coffin, Dutchess Co.,......	62.75......	35
5.	E. M. Guffin, Iowa,...............	56.00......	30
6.	J. R. Howard, Massachusetts,......	52.75......	25
7.	George Hamilton, Nova Scotia,....	52.00......	20
8.	E. Benedict, Clinton Co.,..........	47.94......	15
9.	S. H. Williams, Oneida Co.,........	44.50......	10
10.	A. Carey, Montgomery Co.,........	43.00......	5

The above prizes will be paid in cash on demand.

☞ In tendering our thanks to our agents and friends, for their earnest efforts in behalf of The Cultivator, we would remind them that additions may be made to clubs at any time during the year. As The Cultivator and Annual Register are stereotyped, we shall be prepared to supply orders for them at all times.

New York State Fair.—The citizens of Elmira having complied with the requirements of the Executive Committee, it has been decided that the next Fair of the New-York State Ag Society, shall be held in that town, on the first week of October. The regular meeting of the Executive Committee for May, is to be held at Elmira, on the first Thursday of the month.

Thomas' "Farm Implements."—We are gratified to learn from the publishers of this valuable work, that its sales already sum up *over four thousand copies*—a very large number, when we consider that it is not quite ten months since it was first issued. It may not be out of place to remind our readers of the fact mentioned some time since, of its having been republished, cuts and all, in England—the first instance of the kind, probably, in agricultural literature. These two circumstances together, afford high testimony of the public appreciation of its value.

We are happy to learn of the recent election of Dr. Asa Fitch, of Washington County, as member of the Entomological Society of France. It is the first instance we understand, in which this honor has been conferred upon an American by this, the most eminent association of the day, devoted to this particular branch of science. It is an honor well deserved. The Doctor has long been patiently and industriously engaged in his favorite study, though as his modesty is only equalled by his merit, without bringing himself any more than has been absolutely necessary, into the notice of the public. He has been employed during the past year, under an appropriation for the purpose, from the Legislature to the State Ag. Society, in investigating the character and habits of the insects of New York injurious to Agriculture, and we are glad to know that this appropriation was continued for another year at its late session. Too high an estimate can scarcely be placed upon the importance of the subject, as is evident when we consider the vast sum to which their yearly depredations must amount. Dr. Fitch's excellent lecture at last winter's meeting of the State Ag. Society, to which we alluded briefly at the time, was a clear demonstration of this fact; and we should have been surprised had not his able vindication of its importance been remembered in the appropriations for the year.

Delegate to Paris.—At the last meeting of the Executive Committee, Henry Wager, Esq., of Rome, was appointed a delegate to represent the New-York State Ag. Society, at the French Exhibition of the Industry of all nations, which is to be opened in Paris, next month. Mr. W. had previously received a similar appointment from the United States Ag. Society.

Conn. State Fair.—The second annual Fair of the Connecticut State Ag. Society, is to be held at Hartford, commencing on the 9th of October. The Prize List is a very liberal one—considerably larger, we think, in proportion to the size and population of the State, than that of any other in the Union. It includes handsome premiums for cattle, horses and sheep, from other states.

☞ Col. E. C. Frost, of Catherine, Chemung Co., has been appointed a member of the Executive Committee of the N. Y. State Ag. Society, in place of T. F. Faxton, Esq., of Utica, resigned.

Canada Thistles changing to Chess.—A correspondent in a late number of the Michigan Farmer, gives a statement of the successful destruction of a patch of Canada thistles, by repeated plowing through summer—a mode that has often before proved successful. But the whole field being sown with wheat, the exact portion on which the thistles were killed, was covered with nothing but chess. He thinks the wheat changed to chess, but we are rather inclined to think the injured thistle roots must have been the progenitors, on the principle that a bad weed will be more likely to produce another bad one. Should we expect to gather grapes of thorns, figs of thistles, or inversely, chess from good grain? We at least commend this suggestion to our Michigan friend.

State Fairs.—We hear that Vermont is to hold her next State Fair at *Rutland*, commencing on the 11th of Sept., and Illinois at *Chicago*, the first week in October.

The next State Fair of Indiana is to be held at Indianapolis, provided $2,000 are raised by the city and county, and provided further that the Board can make reasonable terms with the Railroads.

Leather Scrapings as Manure.—You will do me a favor to inform me whether the *scrapings* of leather from a currier's shop are of any value for manure? If so, how can they be used for that purpose? I can get hundreds of loads of them, and if of any value, it will be quite a prize. A. S. Moss. *Fredonia.*

Dry leather scrapings contain as much nitrogen as the best Peruvian guano, and, could they be decomposed and rendered readily assimilable without loss, would be nearly as valuable. As it is, like woolen rags, horn shavings, hair, fish, &c., they are among the most valuable natural fertilizers known. The largest crop of potatoes we ever saw—600 bushels per acre—was grown with a compost of old leather scraps fermented for two years with barn-yard manure. The best method of using leather scrapings, is to form them into a compost with soil enough to prevent the escape of ammonia. Or they may be applied directly to the soil in their fresh state. Three or four tons to the acre in their natural state, would be a heavy dressing. After being decomposed in a compost heap, a less quantity must be used; half a ton to a ton per acre of the leather in this state, would be sufficient.

Sweet Potatoes.—D. E. S., *New-York.*—In the Southern states the Sweet Potato flourishes in great perfection—and even in New Jersey and Long Island, by the aid of a hot bed, good crops of excellent quality may be obtained. In Western New-York, they sometimes do well on very light, warm soils, but as a general thing their quality is rather inferior. One cause of this is—and happily it is one which may be easily avoided—the land is made too rich with putrescent manures. Scientific investigations have shown that rich nitrogenous manures *lessen the proportion of sugar* in the sugar beet; and it is probable that the sweet potato is similarly affected. We would recommend the trial of good superphosphate of lime applied in the hill, as likely to improve the quality of the sweet potato.

The first step in the culture of sweet potatoes is to get the sprouts. Our correspondent can obtain them, probably, from the seed stores in New-York. They are raised by planting whole potatoes about six inches apart in a hot bed, in April. In about a month when the first sprouts are three or four inches high, they are separated from the parent tuber and planted out in hills, leaving other shoots to follow for successive plantings. They are planted in hills about 4 feet apart, and must have clean culture. Will some of our correspondents give us the results of their experience briefly.

LEICESTER SHEEP.—*B. S., Logansport, Ind.*—HUNGERFORD & BRODIE, Rural Hill, Jeff. Co, N. Y, J. A. & D. N. RATHBUN, Springfield, Otsego Co., N. Y, are among the best breeders of Leicester sheep in this state. In Canada West, Wm. MILLER, of Pickering, has as good Leicesters as any we have seen in this country. GEO. MILLER, Markham, JAMES DIXON, Clarke, COWAN & SHAW, Waterloo. and many others in Canada-West, are also celebrated breeders of Leicester sheep. Any of these gentlemen will be able to answer your inquiries in regard to price, &c.

WIRE WORMS.—I perceive there appears to be some difficulty among your correspondents with those pests of farmers—wire worms. I will give you a plan which my father has adopted, and which, if it does not destroy them, effectually prevents their depredations on the corn crop at least. I have never seen it tried on any other crop. Make a strong solution of copperas, with cold water, into which put your seed corn, and let it soak twenty-four hours before planting. The corn may be dried by rolling in gypsum. Corn prepared in this way will vegetate one day sooner than that which is unprepared. Do you know of a remedy against the "Grub?" I have found none but to catch and kill them by hand. DISCIPULUS. *Amsterdam, N. Y.*

WHEAT CROP OF SCOTLAND.—It appears from statistical returns just made to Parliament, that the wheat crop the last year in Scotland, in "the best districts," averaged from 28 to 36 bushels per acre, while in the "worst districts," the average was in no case less than 21½ bushels, and from that up to 28. We should like to know how the best wheat districts of this state would compare with the above, and shall be obliged to any of our friends who will furnish an estimate for their vicinities.

MELON APPLE.—At the meeting of the British Pomological Society, on the 5th of March, Mr. RIVERS of Sawbridgeworth, presented samples of this apple, grown in his nursery. "This," says the report, "was considered a very valuable acquisition, as being one of those delicate fleshed and much esteemed varieties which so rarely come to perfection in this country. 't possessed that peculiar tender flesh and flavor which is only met with in imported specimens of Newtown Pippin." The Melon apple, it will be remembered, originated in Western New-York.

ASHES FOR SORREL.—Leached or unleached ashes will clear the ground of this worthless trash. About twenty years since my father put leached ashes, at the rate of ten loads per acre, on a piece of land so poor that nothing but sorrel would grow upon it, and sowed it to wheat. The crop was good, and from that time to the present, whether in clover, wheat, corn or grass, there has been a marked superiority over the adjoining land where no ashes were applied, so much so as to be easily discernible by the most casual observer. The experiment was tried on another field, with equally satisfactory results. H. B.

Agricultural and Horticultural

IMPLEMENTS.

MOWING AND REAPING MACHINES, Plows, Harrows, Cultivators, and all other Field and Garden Implements of the most improved kinds The largest and most complete assortment to be found in the United States.

R. L. ALLEN, 189 & 191 Water-st.,
March 22—12,14,16.18—m21 New-York.

DISSOLUTION.

THE co-partnership heretofore existing between the subscribers, under the name and firm of H. BLANCHARD Co, is this day dissolved by mutual consent. Either party will sign in liquidation.

HOMER BLANCHARD.
T. M. BURT.

Kinderhook, March 31, 1855.

NOTE.—All communications relating to the business of the old firm of H. BLANCHARD & Co., should be directed to Kinderhook, N. Y.

CO-PARTNERSHIP.

The subscribers have formed a co-partnership under the name and firm of H BLANCHARD & Co. for the transaction of a Commission Wool business in the city of Hartford, Conn

HOMER BLANCHARD. Kinderhook.
LAWSON C. IVES, Hartford.

Hartford, March 31, 1855.

CIRCULAR.

It is now ten years since the subscriber started the WOOL DEPOT system, it being the first attempt at a close classification of Wool in the fleece in this country: four years alone, and six years in company with Mr. T. M. BURT, who now retires from the business. His experience but confirms the position which was taken by the friends of this enterprise in its infancy; that there is no other system yet devised, which is so appropriate to meet the wants and necessities of the wool-grower, dealer or manufacturer, as the close classification of Wool in the fleece. The manufacturer can obtain the grade he wants, and the seller of Wool the relative value of each grade, quality and condition considered; thus affording facilities and encouragement for improvement.

The present location is not deemed by himself, and many of the friends and patrons of the Depot system, as favorable for effecting ready and quick sales as a more central one, easy of access, and in the immediate vicinity of manufacturing establishments. He has therefore formed a copartnership, as above stated, and will remove the Kinderhook Wool Depot business to the city of Hartford, Conn. There is annually manufactured within four hours' ride of that city, more than twelve millions pounds Wool; and within six hours' ride, more than one-half of all the wool worked by manufacturers in the United States.

The same system of classification will be continued as practiced at Kinderhook. Also the services of the same sorter retained. The same charges for receiving, sorting, storing and selling, viz: one and a half cents per pound and the insurance, when sales are made for cash as heretofore. In order to possess additional facilities for selling, sales will be made on time, when they can be more readily effected or better prices obtained, than for cash In all such cases where time sales are made, the payment will be guaranteed, and the usual guarantee commission of two and a half per cent. on the amount of sales, will be charged additional.

Advances will be made in cash or by acceptances, as may be agreed upon. Sacks furnished to consigners by charging 25 cents each for their use.

Thankful for the liberal patronage and confidence bestowed, the subscriber respectfully solicits a continuation of past favors, and confidently hopes, and firmly believes, that he can better promote the interests of his consignors by a change of location, than by remaining where he has formerly been.

H. BLANCHARD.

NOTE.—After six years' experience in selling Wool at Kinderhook, I fully concur in the propriety of H. BLANCHARD's decision to change his location, and remove the Kinderhook Wool Depot business to the city of Hartford, believing that the interests of our former consignors will be promoted. by making more ready sales and avoiding the delays consequent upon our location, and to a rigid adherence to the cash system.

T. M. BURT.

REFERENCES.

George Beach, Esq. President Phœnix Bank; H. A. Perkins. Esq., President Hartford Bank; Messrs. Day, Owen & Co., Merchants; Messrs. Day, Griswold & Co., Merchants; Messrs. Collins & Brothers. Merchants, Hartford, Conn. Messrs. Hacker, Lea & Co., Merchants, Philadelphia; Messrs. Freeland, Stuart & Co., Merchants, New-York; Dr. J. P. Beekman, President Bank Kinderhook, Kinderhook, N. Y.

May 1—m3.

Cure for the Croup.

One of your correspondents recommends Hydropathy for croup. It is unfailing. PRIESSNITZ, the father of the Water-cure, told me in 1850, that he had never lost a case—that he had been called in often when the child was nearly suffocated, and had seen the same child playing in the street the next morning. His plan was simple. Several folds of wet linen were applied to the breast, while the body was enveloped in a wet sheet—(linen being a better conductor of heat than cotton, is preferable)—a couple of blankets were packed tightly over the sheet. In ten minutes a free perspiration was the consequence. In slight cases, this was sufficient. In more aggravated ones, the operation was repeated with a fresh sheet; the blankets were then packed tightly as before, an opening being left at the feet, for the introduction of a clyster of cold water. This was for the purpose of preventing the further formation of the false membrane, which produces the suffocation. A lively perspiration ensued in the course of fifteen minutes, when the patient was removed from the packing, and a wet sheet thrown closely around him, a gentle rubbing on the outside of this, with the hand, removed the perspiration, and all remaining unnatural heat, produced by the croup, arousing instead a healthy circulation and excitement over the whole body. Sleep, which was before impossible, now came unsought for, and the next morning saw no trace of the disease, and little liability of its recurrence. J. G. *Catonsville, Md.*

Heading of Cabbage and Cauliflower.

We notice in the Co. Gent., page 121, an allusion to a common practice among practical gardeners, and especially among the market gardeners of London, (a pretty sure index as to the efficacy of any particular routine in kitchen garden operations,) of the *probable* beneficial effects of transplanting cabbage or cauliflower, and we might add any of the tribe, at two different times. The method is this, and we would advise each and every one who can possibly spare the time, to practice it. In the case of field culture, where the quantity of cabbage for instance is reckoned by the acre, it is scarcely possible to spare the time necessary to perform it: but for the garden, it is every way preferable. Whether the seed is sown in a gentle hotbed, or in the open border later in the season, is of no consequence; as soon as the young plants put forth their rough leaf, or are large enough to handle, they are carefully taken up, and "pricked out" into other borders at two to four inches apart each way. They are carefully watered if dry weather, and shaded from the sun if late in the season, and stand in this place till they become good stocky plants. They are then carefully lifted, and the tap-root having been severed in the act of raising them from the seed bed, they will have thrown out a large quantity of fibres, and hence have a ball of roots so to speak, to take hold of the soil at once.

The beneficial effect of the operation may be explained thus. The cabbage tribe for culinary use, as every botanist knows, is a species of Morphology, or monstrous development of certain parts of its structure, and dependant upon a high state of culture to exhibit its greatest degree of monstrous or cabbage headed form. Lessen this, and you at once bring it back into a nearer approximation to its original type, which consists in its springing up, perfecting its seed, and dying away. The transplanting them destroys its tap root, encourages a quantity of fibres to take its place, and hence increases its capability to develop its monstrous, and to the wants of man, its best shape. E. SANDERS.

Household Matters.

[A lady of our particular acquaintance, remarkable for her skill in household matters, has sent us the following receipts, (with the introductory remarks,) and has promised more—which we are sure will be acceptable to our readers.]

While so much is said for the improvement of the Country Gentleman, I should be glad to see something mingled with it for the improvement of the Country Lady—that she may be instructed to cultivate and adorn her own Eden (which I take to be her family circle) and from which I trust she may never again be tempted. While her hands are employed in making good butter and cheese, may we not occasionally have an article that shall serve to strengthen her in the performance of all her duties as a true woman.

TOMATO PIE.—Take fully ripe tomatoes, throw them into boiling water for a minute or two, to remove the skin; have ready a paste, such as one would make for a peach pie—cut the tomatoes, and place a layer, of sugar and a layer of tomatoes, and some peach kernels, which gives them a peculiar peach flavor. Pies made in this way can be scarcely distinguished from peach, and are really delicious. They must have about as many kernels in a pie as are found in a real peach pie. [As the peach crop has been destroyed this year in a large portion of the country, and many peach stones were saved over, this may prove a valuable substitute the present season. EDS.]

PERUVIAN GUANO.

THE above is received *direct* from the Peruvian Government, and is warranted FRESH and PURE, of the FIRST quality—and not DAMPENED to make it WEIGH HEAVIER. The GOVERNMENT BRAND is on every bag. For sale in large or small quantities, at the lowest price.

Superphosphate of Lime, Poudrette, Plaster of Paris, and all other valuable Fertilizers. R. L. ALLEN,
189 & 191 Warer-Street,
March 22—12,14,16,18—m2t. New-York.

NOTICE.

PERUVIAN GUANO. As there are various substances now offering for Peruvian Guano, in the New-York market, to avoid imposition, be particular to observe that every bag of the genuine Peruvian Guano has branded upon it,

WARRANTED NO. 1.

PERUVIAN GUANO,

Imported into the United States by

F. BARREDA BROTHERS,

FOR THE PERUVIAN GOVERNMENT.

When taken in quantities from 1 to 5 Tons,........$48
do do do 5 to 10 do 47
do do do 10 to 15 do 46
A further discount in larger quantity. 2000 lbs. to the ton.
A. LONGETT, 34 Cliff-st.,
March 22—w4tm2t Corner of Fulton, New-York.

Blood Stock for Sale.

THE subscriber offers for sa'e the following Devonshire Stock—viz: 2 fine Cows, with calf by Imported Bull **Rubens**, which took the 1st Premium at the N. Y. State Fair in the year 18—; one very fine yearling Bull, sired by the same imported Bull; 2 yearling Heifers, one of which sired by the same; 2 two-year-old Heifers, and one 3 year old Bull. The above originated from the stock of S. & L. Hurlbut, of Winchester, Ct., and warranted *pure*. Satisfactory references with their pedigree can be given.

Some other stock of the Natives also

N. B. POTATOES for sale, for eating and seed—Mercers, Carters and Silver Lakes.

FRANCIS W COWLES,
March 29, 1855—w6tm1t Farmington, Ct.

Maclura or Osage Orange Hedges.

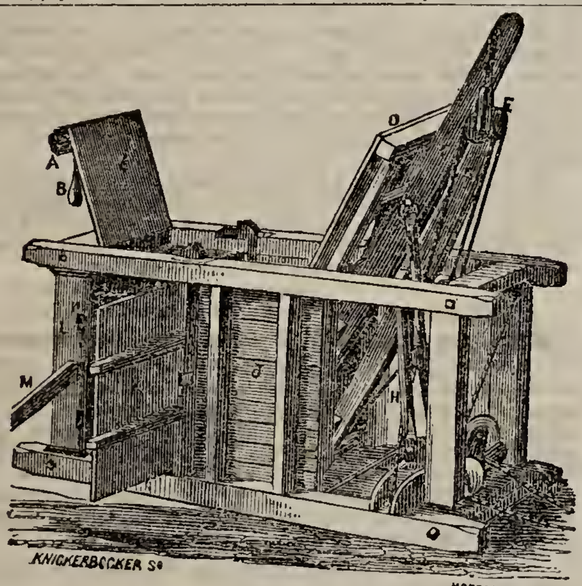
H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants.

IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges. given to purchasers

G. G. Sheppard, New-York—P. B. Mingle, Philadelphia—Byram, Pitkin & Co., Louisville, Ky., wholesale Agents.

Apply as above. April 5—w2m2m



Dederick's Hay Press.

Dederick's Parallel Lever Horizontal and Vertical Portable Hay Press. Patented May 16th and June 6th, 1854.

THE above new, powerful, and exceedingly convenient Press, with two men and a horse, will bale, according to the No. of the press, from six to eight tons of hay per day. The Press for 300 lb. bale, is 12 feet long, 5 feet high and 3½ wide. It can be drawn by a pair of horses or oxen, as a sleigh is drawn, from one field or farm to another; and whenever stopped, is always ready for operation They are now being shipped to all parts of the country, and are, in every case, giving the highest satisfaction. They have received the 1st Premiums at the New-York, Ohio and Pennsylvania State Fairs. Prices. according to the size, from $130 to $175.

For further particulars, address

DEERING & DICKSON, Manufacturers,
Premium Agricultural Works, Albany, N. Y.,

Or either of the following Agents:

John Mayher & Co.. P. B. Gates, New-York.
Paschall Morris & Co., Philadelphia, Pa.
James Wardrop, Pittsburg, Pa.
James Garget & Co., Cleveland, Ohio.
Byram. Pitkin & Co, Louisville, Ky.
Wm. M. Plant & Co., St. Louis, Mo.
Mumford & Co., Lafayette, Ind
A. & J. Kenworthy, Thornton, Ind.
J. W. Holder & Co.. Bloomington, Ill.

March 15—w&mtf

COPARTNERSHIP.

C. M. SAXTON, No. 152 Fulton Street, has this day associated with himself, as copartner in the Publishing Business, AUGUSTUS O. MOORE.

The business will hereafter be conducted under the firm of C. M. SAXTON & CO.

New-York, February 21st, 1855.

NEW BOOKS.

C. M. SAXTON & CO.,

AGRICULTURAL BOOK PUBLISHERS,

No. 152 FULTON STREET, NEW-YORK, have in press:

I.

THE PRACTICAL LAND DRAINER;

Being a Treatise on Draining Land, in which the most approved systems of Drainage are explained, and their differences and comparative merits discussed; with full Directions for the Cutting and Making of Drainage, with Remarks upon the various Materials of which they may be composed. With many illustrations. By B. Munn, Landscape Gardener. Price 50 cents.

II.

The Practical Fruit, Flower, and Kitchen Gardener's Calendar.

By Patrick Neill. Edited by G. Emerson, M. D., Editor of "Johnson's Farmer's Encyclopedia" With Notes and Additions, by R. G. Pardee, Author of "Manual of the Strawberry Culture." With illustrations. Price, $1.25.

III.

DOWNING'S LANDSCAPE GARDENING.

C. M. SAXTON & Co., No. 152 Fulton street, have in press a new and elegant edition of a treatise on the Theory and Practice of

LANDSCAPE GARDENING,

Adapted to North America, with a view to the Improvement of Country Residences, comprising Historical Notices and General Principles of the Art, Directions for Laying Out Grounds and Arranging Plantations, the Description and Cultivation of Hardy Trees, Decorative Accompaniments to the House and Grounds, the Formation of Pieces of Artificial Water, Flower Gardens, etc., with Remarks on Rural Architecture, by A. J. Downing. Price, $3·50.

JUST PUBLISHED,

Youatt and Martin on the Hog,

A Treatise on the Breeds, Management, and Medical Treatment of Swine, with directions for Salting Pork, and Curing Bacon and Hams. By William Youatt. V. S. Illustrated with engravings drawn from life. Edited by Ambrose Stevens. Price, 75 cts.

Pardee on Strawberry Culture.

A Complete Manual for the Cultivation of the Strawberry; with a description of the best varieties.

Also, Notices of the Raspberry, Blackberry, Currant. Gooseberry and Grape; with directions for their cultivation, and the selection of the best varieties. "Every process here recommended has been proved, the plans of others tried, and the result is here given." With a valuable Appendix, containing the observations and experience of some of the most successful cultivators of these fruits in our country. Price, 50 cents.

Elliott's American Fruit Grower's Guide in Orchard and Garden;

Being a Compend of the History, Modes of Propagation, Culture, &c., of Fruit Trees and Shrubs, with descriptions of nearly all the varieties of Fruits cultivated in this country; and Notes of their adaptation to localities. soils, and a complete list of Fruits worthy of cultivation. By F. R. Elliott, Pomologist. Price, $1.25.

The above books will be sent, Postage paid, to any part of the Union. April 5—w3tm2t

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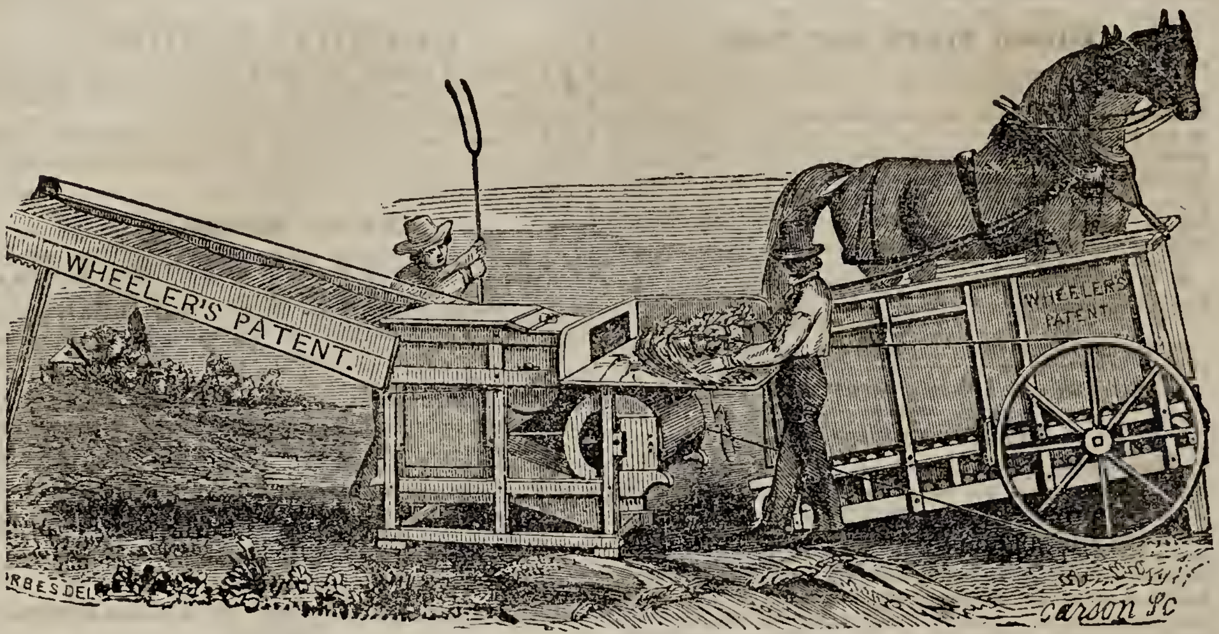
Black Hawk Horse Raven.

THIS Horse will stand at the farm of the subscriber in Norfolk, Conn. called the Robbins Farm, the coming season, at ten and fifteen dollars. The oldest colts of this horse are three years old. The stock is of extraordinary promise. Raven is by Vermont Black Hawk—dam has the blood of Gifford Morgan and of Cock of the Walk.

April 19—w3tm2t ROBBINS BATTELL.



NEW-YORK STATE AGRICULTURAL WORKS,

BY WHEELER, MELICK & CO., ALBANY, N. Y.

ENCOURAGED by the preference which has been given to our Machines wherever they have been introduced. we take pleasure in announcing to the Farmers and Planters of the United States. and to Dealers in Agricultural Machines generally. that our arrangements for the year 1855, are on a scale sufficiently extensive to enable us to fill our increasing orders. with promptness and despatch. We shall continue to adopt every alteration that experience suggests, and thorough test proves to be valuable. Our manufacturing facilities, including steam labor-saving machinery and tools, are unequalled in extent and completeness, by any similar establishment in the world; and each branch—Iron, Wood, Foundry Work. and Finishing. is under the immediate superintendence of a competent and experienced partner, who personally inspects materials and workmanship. We employ competent workmen, and have no job or piecework done. In our long experience; our determination to make each article the best of its kind; in our superior manufacturing facilities; in the regularly increasing popularity of our Machines wherever they are used, and in our unrestricted warranty. we trust the public will continue to find the strongest guaranty that can be given, that our machines are unequalled in the quality of their work, durability, convenience, and cheapness.

☞ A MEDAL was awarded to WHEELER'S POWER AND THRESHER at the recent Crystal Palace Exhibition in the City of New-York.

WHEELER'S
Patent Endless-Chain Railway Horse Power.

These Horse Powers, (represented in the above cut.) are unrivalled for driving all kinds of Farmers', Planters', and other Machinery, which admits of being driven by Horse Power. They are made for either one or two horses, and their superior merits, in point of durability and ease of running, are fully established; while their compactness and simplicity, lightness, and greater length and width of Treading Floor and Stall, give them advantages over other Powers, which are highly appreciated by those who have tried them. *Several thousands* are in use, some of which have threshed over 100,000 bushels, and though our present Powers are much improved over the old ones of the same kind, yet the latter are still good. Over 1000 of them were sold by us and our agents the past season. (a larger number than in any previous year,) thus proving their increasing popularity.

WHEELER'S
Patent Combined Thresher and Winnower.

This Machine, (also represented in the cut,) is a late invention It was got out three years ago. after a long series of experiments resulting in a machine which performs the *three operations of Threshing, Separating. and Winnowing*, with as much dispatch, and as few hands and horses as are required to thresh and separate only with other machines, and although designed for so complicated work, it is yet a model of simplicity and compactness. The entire running parts are driven by the main belt and one small band. We have no doubt it is the most perfect machine in use for Threshing and Winnowing. Driven by two horses, they thresh and clean from 150 to 200 bushels of wheat, or twice that quantity of oats per day.

We give a notice of it from the Valley Farmer, published at St. Louis, Mo., and also two letters from gentlemen, who have the machines in use. showing the estimation in which they are held, premising that these two are about an average of many other similar letters, which we can show

[*From the Valley Farmer of August*, 1853.]

"Wheeler's Combined Thresher and Winnower."

"We take pleasure in laying before our readers the following extract from a letter just received by us from a very respectable individual in Cape, Girardeau County, Mo, to whom we sold one of these machines about a week ago, with the understanding that if it did not work to his satisfaction he could return it to St. Louis at our expense. It will be recollected that the manufacturers warrant these machines to thresh and clean from 150 to 200 bushels of wheat per day, or twice that quantity of oats."

"Apple Creek, Mo., July 18, 1853

"Mr. E. Abbott,

"Dear Sir: I have tried my Thresher and Winnower, and it has given entire satisfaction. I have moved the machine one mile, set it up, and threshed two hundred and forty-two bushels of wheat *in one day*, and have threshed forty bushels an hour. It works finely, and is considered the best machine to thresh and save grain in South-East Missouri.

"IT CAN'T GO BACK TO ST. LOUIS.

"I think I shall thresh from 8,000 to 10,000 bushels of wheat this season. Yours truly,

James F. Colyer."

Another gentleman to whom we sold our Double Power and Combined Thresher and Winnower, writing to us from Orange Co., N. Y., under date of Dec. 9th, 1853, says:

"I have received the Machine, and used it, and it gives the very best of satisfaction that could be expected.

Yours truly,

Henry J. Howe."

Having sold between 300 and 400 of the Winnowers during the past season, we could, if space permitted, give many other testimonials to their utility, but the above must suffice.

WHEELER'S
Overshot Thresher with Vibrating Separator.

This Machine is also our own invention, and has been in use 13 or 14 years, and its many advantages are appreciated by *other Manufacturers*, as well as the farming public. Driven by our double Power, it threshes and separates from the straw from 150 to 200 bushels of Wheat, or twice as much Oats, per day. For the Single or One Horse Power we make a smaller Thresher and Separator, which threshes from 75 to 100 bushels of Wheat per day. The small Machine is adapted to moderate sized farms, and as the Single Power is sufficient for sawing wood, churning, cutting stalks, straw, &c., and driving almost every kind of Machine used by Farmers, and is capable, by changing Horses and elevating the Power properly, of threshing much faster than we stated above, it is a very popular Machine in some sections.

We would also call especial attention to our Clover Hullers, Portable Saw Mills, and Stalk and Straw Cutters, either of which are adapted to both our Double and Single Powers.

☞ All our Machines are *Warranted* to give entire satisfaction, or they may be returned at the expiration of a reasonable time for trial.

PRICES.

For Double or Two Horse Power, Thresher and Separator, including belts, wrenches, and oil-cans, complete,	$160 00
Double Power alone, including belt,	120 00
Do without belt,	115 00
Double Thresher and Separator, alone,	40 00
Single or One Horse Power, Thresher and Separator, including belts, oil-cans and wrenches, complete,	128 00
Single Power alone, including belt,	90 09
Do without belt,	85 00
Single Thresher and Separator, alone,	38 00
Clover Hullers	32 00
Straw and Stalk Cutters, for Horse Power,	32 00
Circular Saw Mill, with 24 inch Saw,	38 00
One Horse Power, without band wheel,	80 00
Churn Gearing,	13 00
Band Wheel,	5 00
Band for Power,	5 00
Double Power, with Combined Thresher and Winnower, including belts, wrenches, &c.,	245 00
Combined Thresher and Winnower, alone,	125 00

Orders are solicited, and will be promptly filled.
Address

WHEELER, MELICK & CO.,
Albany, N. Y.

Albany, April 19, 1855—w&m1t

Ditch Diggers, Tile and Brick Machines,

Manufactured by PRATT & BROS., Canandaigua, N. Y.

THE Ditch Digger and Tile Machine were constructed to cheapen and extend Drainage. Ditches must be made cheaper and faster, and Tile must be made easily, simply and extensively. The Farmer feels it and agriculture demands it: and we beg leave to say to all interested, that these machines will accomplish the object.

We warrant our Ditch Digger to be capable of cutting from fifty to 150 rods of Ditch in a day, by the use of one man and two horses, not less than 2½ feet deep; and that this implement is made in a thorough and workmanlike manner.

We warrant our Tile Machine to be capable of making from tempered clay, 10 to 15.000 Tile or Brick in a day, by the use of two horses—grinding the mud and making the Tile or Brick at the same time and by the same operation—using steam or water power with equal facility.

This Tile Machine enables Brick makers to make Tile and Tile makers to make Brick, changing from one to the other in less than 5 minutes, and the cost of the Machine is no more than those in ordinary use, it being the simplest arrangement known. The quality of Brick made, is but a little inferior to pressed Brick.

Farmers, if you want Tile made cheap and near you, see yourselves that it is done. See to it that *some one* gets a machine and makes them. Farmers, if you want Ditches made quickly and cheaply, buy a Ditch Digger, or find a man that will do it. Farmers and others, if you want to see these machines at work, come when frost has disappeared and see them. We shall be ready, and take pleasure in showing them to you.

Brick makers, do you want to change your business for the better? Then make Tile and better Brick, and you will be the gainer, and agriculture accommodated. We have a large number of Tile Dies from which to select.

Dealers in Agricultural Implements, we will supply you on favorable terms. Persons wanting exclusive Patent privileges, we will negociate with you. All, wanting any further information, will please address PRATT & BROS
Dec. 21—w&mtf. Canandaigua, N. Y.

PURE BRED ANIMALS

AT PRIVATE SALE.

Mount Fordham, Westchester Co, 11 miles from City Hall, New-York, by Harlem Railroad.

HAVING completed the sale of my domestic animals, as advertised in Catalogue of 1854, excepting Short Horn Bull BALCO (9918), and at prices highly remunerative, for which patronage I feel grateful, not only to the public of almost every State in our Union, but to the Canadas, Cuba, and the Sandwich Islands, *I will issue about the 1st of March, a Catalogue for* 1855, consisting of Short Horned Bulls and Bull Calves, (some of which belong to my friend and part associate, Mr. N. J. BECAR,) North Devon Bulls and Bull Calves, Southdown Rams, Suffolk, Berkshire and Essex Swine, now ready for delivery, of almost all ages, and of both sexes. This Catalogue will be illustrated with portraits of my Prize Animals. Most of the original animals of my breeding establishment, were selected by me from England in person, and strictly in reference to qualities, in my judgment, best adapted for the use of this country.

Feb. 1—w&mtf L. G. MORRIS.

IMPORTED "MONARCH."

BY PRIAM, out of Delphine by Whisker, will stand at L. G. Morris' Herdsdale Farm, 1½ mile from Scarsdale Depot, and 24 miles from New-York by Harlem Railroad. Terms: $20 the season for mares not thorough-bred, and $50 for thorough-breds. Pasturage, $3 per month. Accidents and escapes at the risk of the owner. All business connected with the horse, to be addressed to "MONARCH'S GROOM, Scarsdale P. O., Westchester Co., N. Y." A portrait taken from life, with performances on the turf, full pedigree, &c. &c., will be forwarded by mail, by addressing

L. G. MORRIS,
March 22 Fordham, Westchester Co., N Y.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep, French Sheep, and Suffolk Pigs.
Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co, Pa. March 1—w1y*

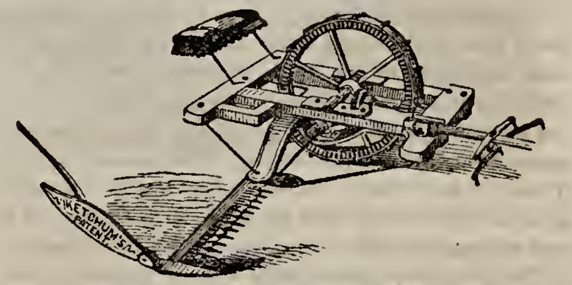
Thorough-Bred Short Horns.

DURHAM Bull and Heifer Calves, descended from the herds of Mr. Bates and his nephew Mr. Bell, for sale.

HERMAN WENDELL, M. D.
Nov. 23—wtf Albany.

THOMAS GOULD,

BREEDER of Durham and Devon Cattle, Leicester Sheep, Suffolk Swine, Madagascar or Lop-eared Rabbris, English Ferrets, Guinea Pigs, Choice and Fancy Poultry.
Jan. 18—w&mtf Aurora, Cayuga Co., N. Y.



Ketchum's Mowing Machine.

THE subscribers have made arrangements by which they have the exclusive sale of this celebrated Mowing Machine in and for Albany and vicinity. They will furnish them with all the latest improvements, and one extra set of knives, and the fullest warranty to work to the satisfaction of the purchasers, as follows:

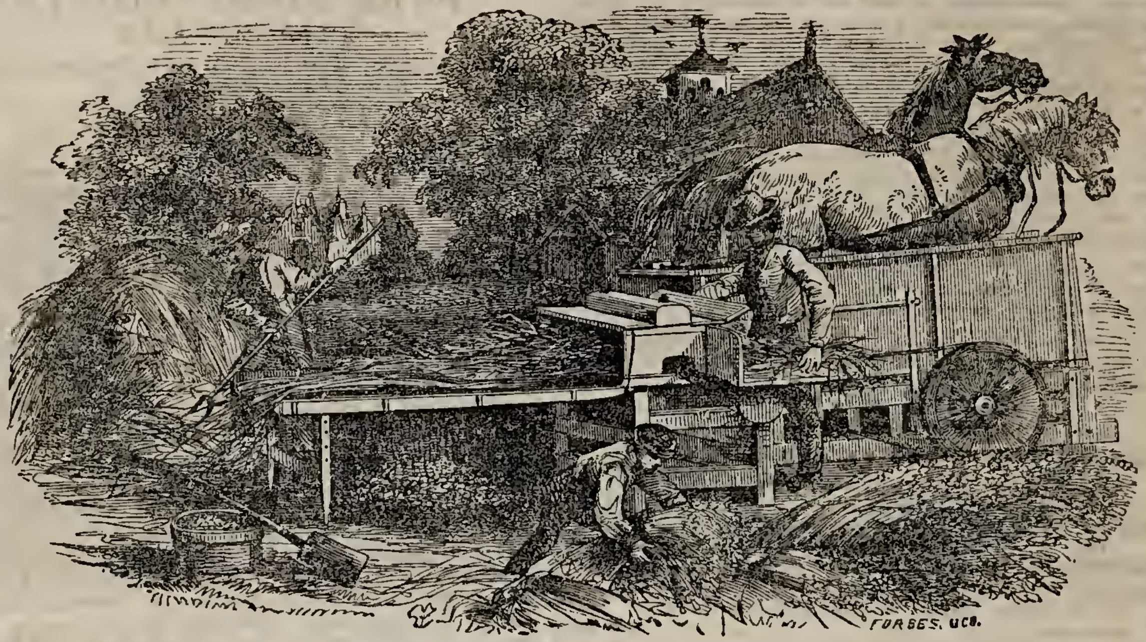
For One Horse Mower, $95; for Two Horse Mower, $118; with Reaper Attachment. $15 extra.

All persons desiring Mowers, and who can obtain them from this point, should order them early, to prevent disappointment, as the supply will be limited.

EMERY BROTHERS,
March 22— 52 State-st, corner of Green, Albany.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.



EXCELSIOR AGRICULTURAL IMPLEMENT MANUFACTORY,

WARE-HOUSE AND SEED STORE,

369 & 371 BROADWAY, ALBANY, NEW-YORK.

RICH'D H. PEASE, PROPRIETOR.

THE EXCELSIOR RAILROAD HORSE POWER,

WITH

Threshers, Separators, Cleaners, Clover Hullers, Circular and Cross Cut Saw Mills,

For various purposes, and all other Implements adapted to the Power, is not surpassed by any now in use, and is offered on the most Liberal Terms, both as to discount and warrantee.

THE subscriber is manufacturing the above Power which combines all the qualities of the most celebrated Rail-Road Horse Powers, and some very valuable improvements.

Capacity, Economy and Warrantee.

The single Power will thresh from 75 to 125 bushels of oats, rye, buckwheat or barley, easily, in one day, attended by three men, and will saw from 20 to 25 cords of wood in the same time and with the same number of men. The double Power will perform almost double the amount of work in the same time, with one additional man, and all other work of a similar kind with equal facility. The construction of this Power is such that its motion can be readily changed from slow to fast with the same speed of the horse, as the gears are all outside the Power, and accessible at all times.

The warrantee is as follows:—If the Powers do not answer the description, and do any reasonable amount of work required of them, the money will be refunded, and the machine returned at the manufacturer's expense.

Fisk Russell's Mowing Machine.

The subscriber is sole agent for the State of New-York, and general agent for the United States for this celebrated machine, which is justly entitled to its name,

"KING OF THE MOWERS."

It will cut and spread 15 acres of grass in a day, with ease, and it is warranted not to clog. It cuts wet grass equally as well as dry, and fine as well as coarse. It has two wheels, and a "cam" motion, and no side draft. It can be conveyed from place to place with as much facility as a wagon. This machine was awarded a Silver Medal at the N. Y. State Agricultural Society's Fair in New York last fall. The supply is limited, and those wishing this Mower will please send their orders early. Certificate of B. B. KIRTLAND, Esq., Treasurer of N. Y. State Agricultural Society:

DEAR SIR—I used Fisk Russell's Mowing Machine on my farm, last season, and mowed about 60 acres of various kinds of grass, from coarse timothy to short, fine grass, both green and ripe. I have no hesitation in saying that in all its performance, that is, ease of *draft, not clogging*, and the perfection of the cut, it is the best machine I ever saw.

Greenbush, N. Y. B. B. KIRTLAND.

On the 26th of January, 1854, I purchased the entire stock in trade and machinery for manufacturing, of the Albany Agricultural Works of this city, and am prepared to furnish a full and complete assortment of Field and Garden Seeds and

AGRICULTURAL IMPLEMENTS.

Thankful for the patronage heretofore so liberally bestowed on me, I most respectfully solicit a share of the favor of the agricultural community. For further particulars, address

RICH'D H. PEASE, Albany, N. Y.

Fertilizers.

BEST Peruvian Guano—
Super-Phosphate of Lime, "DeBurg's No. 1"—
Poudrette, of the best quality—
Ground Plaster, suitable for agricultural purposes—
Ground Bone, Bone Dust, and Burnt Bone.

Also, Grass Seeds of reliable quality, at the lowest market price.

GEO. DAVENPORT, 5 Commercial,
cor. of Chatham st., Boston.
Feb. 9, 1851—w&mtf

BLACK HAWK.

THE original VERMONT BLACK HAWK will serve a limited number of mares the coming season at $100 each. Gentlemen wishing to secure the services of this horse, must send in their letters at once.

Good pasturing at 50 cents per week. All accidents and escapes at the risk of the owner.

DAVID HILL,
Bridport, Addison Co., Vt.
March 1, 1855—m5t

ENGLISH CATTLE,

Imported on commission by Messrs. THOS. BETTS BROS., Bishop's Stratford, Herts, England — 81 Maiden Lane, New-York City.

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
Short-Horned Cattle,
Devons, Herefords, Ayrshires,
Alderney Cows from Islands of Alderney and Guernsey,
Pure bred Southdown Sheep,
Hampshire Sheep,
Cotswold, Leicester do
Suffolk Pigs,
Essex, Berkshire do
Merino Sheep from Spain,
Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane
Jan. 4—1am—m1y. New York City.

FARMERS AND GARDENERS

WHO cannot get manure enough, will find a cheap and powerful substitute in the IMPROVED POUDRETTE made by the subscribers. The small quantity used, the ease with which it is applied, and the powerful stimulus it gives to vegetation, render it the cheapest and best manure in the world. It causes plants to come up quicker, to grow faster, to yield heavier and ripen earlier than any other manure in the world, and unlike other fertilizers, it can be brought in direct contact with the plant. Three dollars worth is sufficient to manure an acre of corn. Price, delivered free of cartage or package on board of vessel or railroad in New-York city, $1.50 per barrel, for any quantity over six barrels; 1 barrel, $2; 2 barrels, $3 50; 3 barrels, $5.00; 5 barrels, $8.00. A pamphlet with information and directions will be sent gratis and post-paid, to any one applying for the same.

Address, the LODI MANUFACTURING COMPANY,
74 Cortlandt Street, New-York.

WATERTOWN, Mass, Oct. 19, 1854.

Lodi Manufacturing Company:

Gentlemen—at the request of John P. Cushing, Esq. of this place, I have, for the last five years, purchased from you 200 barrels of POUDRETTE per annum, which he has used upon his extensive and celebrated garden in this town. He gives it altogether the preference over every artificial manure, (Guano not excepted,) speaks of it in the highest terms as a manure for the kitchen garden, especially for potatoes.

I am, gentlemen, very respectfully,
Your obedient servant,
Jan. 18—w1am4t—m4t BENJAMIN DANA.

Fertilizers—Established Nine Years.

KENTISH'S Prepared Guano—Price $25 per Ton. Superphosphate, No. 1, by the New-York Manufacturing Company—Price $40 per Ton. Both these articles can be had at the Depot No. 159 West Street, New-York City
March 22—w3tm3t KENTISH & CO.

Farm Lands for Sale,

IN LOTS TO SUIT PURCHASERS.

OVER **2,000,000 OF ACRES** of Selected Prairie Farm Lands, belonging to the Illinois Central Railroad Company. The price will vary from $5 to 25, according to quality, location, &c. The purchase money may be payable in five equal installments, the first to come due in two years from date of contract, the others annually thereafter—giving six years to pay for the land, with a charge of only *Two per cent per annum interest.* The first two years' interest payable in advance. The Company's construction bonds received as cash. Apply to CHAS M. DUPUY, Jr.,
Land Agent Ill. Cen. R. R. Co.
March 15—m6t* No. 84 Lake St., Chicago, Ill.

SUPERIOR THOROUGH-BRED

Devon Cattle and Essex Pigs for Sale.

THE subscriber, having this day purchased from Mr. W. P. Wainright, his interest in the herd of Devon Cattle hitherto owned conjointly by them, will continue to give his strict attention to the breeding and raising of this increasingly popular breed. Having now a herd of over twenty head, bred entirely from animals of his own importation, he is enabled to offer for sale a few young Bulls and Heifers, of very superior quality.

Also constantly on hand, thorough-bred ESSEX PIGS, descended from the best imported stock.

For full particulars as to age, price, pedigree, &c., address
C. S. WAINRIGHT,
April 1—m3t Rhinebeck, Dutchess Co., N. Y.

NOTICE TO THE PUBLIC.

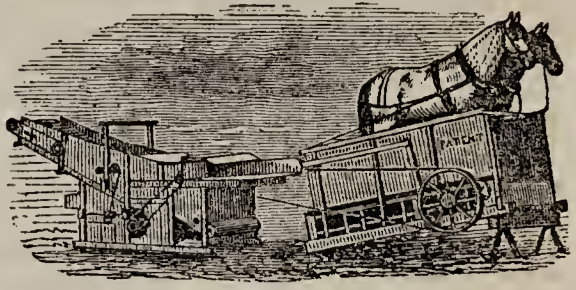
WHEREAS, many Grape roots are now being sold in different parts of the country, for the EARLY NORTHERN MUSCADINE, which we consider the best of all Grapes for this northern latitude—the public are hereby cautioned against imposition: as many of these are spurious, and not the genuine kind, as there has not yet been time to grow many since these first came before the public. The subscribers will only hold themselves responsible for the genuineness of such as are ordered to their personal address, or of their legally appointed agents, who will at all times be able to to show proper reference to that effect.

D. J. HAWKINS,
P. STEWART.
New Lebanon, Shaker Village,
March 15, 1855—w2tm2t. Columbia Co., N. Y.

FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPER & Co., 41 Water St., New-York; Caleb Gasper, Esq., Marcellus, Onondaga Co., Geo Young, Esq., Milo Center, Elias Bently, Esq, Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N Y, Judge Ellsworth, Pen Yan. March 1—mtf—



G. WESTINGHOUSE & CO.

CONTINUE the manufacture of Threshing Machines, Clover Cleaners, Wood Saws, &c., at Central Bridge, Schoharie Co., N. Y.

We have improved our Thresher and Cleaner, (and for which we have obtained a Patent last year,) which works superior to anything of the kind in use, and has given entire satisfaction where used.

Our Horse-Power, Thresher and Separator, has the name of being the best machine in use, where known. Those wanting machines will be more likely to get them when wanted by ordering them early, as we shall not be able to make more than 100 of them this season. Last year we did not supply the demand by a large number, being unable to get them out in time.

Further information given on application by mail otherwise.
G. WESTINGHOUSE & CO.
March 22—w4tm3t Central Bridge, N. Y.

Agricultural Books,

For sale at the office of the Country Gentleman.

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SALE OF
Imported Short Horned Cattle,
SOUTH DOWN SHEEP AND SUFFOLK HOGS.

I WILL sell by Auction at my residence on Wednesday, 20th June next, my entire Herd of Short Horned Cattle—consisting of about Twenty-five head of my choice animals. Nearly the whole of them are Imported, and their direct descendants.

Also about Seventy-five South Down Sheep. These are imported from the flock of Jonas Webb, Esq , of England, and their descendants.

Also, a few Suffolk Hogs, bred from the importation of J. C. Jackson, Esq.

Catalogues, with the pedigrees and further particulars. will be ready about 20th April, and can be had at the Offices of the different Agricultaral Papers in this State, and Ohio Cultivator and Indiana Farmer, and by application to me.

Terms of Sale.—For all sums under $100, cash; over $100 to $150, three months; over $150 to $300, six months; and all over $300, six and twelve months' credit, on approved notes with interest.

J. M. SHERWOOD.
April 5, 1855—w11tm2t Auburn, N. Y.

RURAL PUBLICATIONS.

THE attention of all persons interested in rural pursuits, is invited to the following publications:

THE COUNTRY GENTLEMAN—a Weekly Journal for *the Farm, the Garden and the Fireside*—forming yearly two large and beautiful quarto volumes of 416 pages each. Price, $2 00 a year. This is, beyond question, the best agricultural journal published in this country. Specimens sent to all applicants.

THE CULTIVATOR—a Monthly Journal for the Farmer and the Horticulturist, beautifully illustrated, and forming an annual volume of nearly 400 pages, at 50 cents a year.

THE ILLUSTRATED ANNUAL REGISTER of RU- RAL AFFAIRS for 1855, embellished with more than *One Hundred Engravings*,—1 vol. 12 mo. 144 pp.—price, 25 cents in paper covers—bound, 50 cents—*sent prepaid by mail.*

RELATIONS OF CHEMISTRY TO AGRICULTURE, and the Agricultural Experiments of Mr. J. B. Lawes, a new work by Prof Liebig, just published, price 25 cents—sent prepaid by mail.

☞ Specimens and Prospectuses sent to those disposed to act as Agents. Address the publisher,

LUTHER TUCKER, *Albany, N. Y.*

Second Annual Sheep Shearing

And Exhibition of Stock at the Elgin Springs, 3 miles from Vergennes, Vt., June 12th and 13th, 1855.

A LARGE number of the best farmers in the country are pledged to shear sheep and exhibit stock at that time, and invite all who feel an interest in the improvement of stock and farming implements, to exhibit them at that time. There will be a good opportunity for a trial of the different kinds of Mowing Machines, and purses will be given the fastest trotting Horses. May 1—w2tm1t

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BRAHMA POOTRA EGGS

FOR SALE, at $1.00 per dozen, by R. B. SHAW,
April 26—w&m1t* Trenton Falls, Oneida Co., N. Y.

Field and Garden Seeds.

SPRING WHEAT.—Golden Drop, or Fife, Tea, Black Sea, and other celebrated varieties.

POTATOES.—Early Imperial, Early June, Excelsior, and Mexican, and other kinds—very superior.

OATS.—Poland, Imperial, and Potato.

PEAS.—Early May, Early June, and Prince Albert.

Sugar Beet, and a great variety of other sorts of best fresh Garden Seeds.

GRASSES AND CLOVER.—Ray, Blue, Foul Meadow, and Sweet-scented Vernal Grasses. Alsike, Mammoth, and other sorts of Clover. All kinds of American Grasses.

R. L ALLEN,
189 & 191 Water st.,
March 22—12,14,16,18—m2t New-York.

A NEW WORK BY BARON LIEBIG.

The Relations of Chemistry to Agriculture,
AND
THE EXPERIMENTS OF J. B. LAWES.

BY JUSTUS VON LIEBIG.

Translated at the especial request of the Author, and under his immediate supervision, by S. W. Johnson.

THIS new work of the justly celebrated Liebig, gives a full exposition of its distinguished author's views of the Relations of Chemistry to Agriculture. It is a thorough and searching review of the criticisms which have been made, during the last four or five years, upon his theory of the action of the various fertilizers and the food of plants. Intricate as the subject is, it will not fail to excite the unflagging interest of the reader, be he chemist or farmer, and to attract universal attention among the scientific as well as the farming community.

Price 25 cents—sent free by mail, for nine postage stamps.
All orders to be addressed to LUTHER TUCKER,
Publisher Country Gentleman,
Albany, N. Y.

☞ For sale by C. M. Saxton & Co., 152 Fulton-Street, New-York. who will supply orders from the trade.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD SERIES.

To Improve the Soil and the Mind.

Vol. III. ALBANY, JUNE, 1855. No. VI.

Extracts from our Correspondence.

Best Crop for Soiling Cattle.—The following extract of a letter from **Lewis Bailey**, Esq., of Fairfax county, Va., confirms the opinion we have long held, that Indian corn is one of the best, if not the best crop formers can grow for soiling purposes. Mr. B. says:

"You speak of soiling in the last number. Allow me to say that after an experience of fifteen years, having followed it every summer for my milch cows and horses—the former fed night and morning in the stables; the latter kept in the stables all summer—all fed on green corn (sown broadcast) as soon as it is large enough to feed, and continued until the frost compels us to cut and cure it for winter feed—that I think Indian corn far preferable, and much more productive than anything I have seen cultivated or used for soiling. I have tried peas of several kinds, tares, lucerne, oats and millet, and most other crops cultivated in this country for this purpose, but must say that I give the preference to southern corn. I commenced in Virginia, on a very poor farm, and now think I am very much indebted to my practice of soiling for the improvement of my farm."

A New Grass.—In an answer to Mr. C. **Colby**, in the Country Gentleman of March 20, Mr. B. V. **Iverson**, of Columbus, Geo., writes us as follows:

"I have a winter grass, the botanical name of which is "Ceratochloa Breviaristata," or "short awn Horn Grass," which I feel confident will suit his soil, both for the grazing of stock, making nutritious hay, and as a fertilizer. In his State, this grass cannot be used by stock while covered with snow, but it can be so cultivated as to furnish excellent grazing before snow falls, and after it is gone. As a hay grass, the snow would not be in its way. This grass will stand a greater degree of cold than either wheat, rye or oats. It will suffer him to cut it four times for hay, and then yield abundance of seed, ripen and sow it without any trouble to him, and be ready to return a large coat of manure to his field by being turned under. To do this, the land must be very rich. Each cutting of the grass will give him more hay, in weight, than any grass he ever saw; and when the four are added, he will be satisfied. There is a particular way to manage it to effect this object. To graze stock and as a fertilizer, there is also a particular mode to be observed in its cultivation. This grass is *very sweet*, and I can furnish plenty of testimony (if required,) that stock of every kind and poultry, prefer it to any other, not excepting even barley. They will not touch timothy, clover, blue grass nor barley, when they can get this. This is emphatically a *winter grass*, and grows only in the fall, winter and spring."

Though we know nothing of the above grass, we should be disappointed if it equaled the recommendations of our correspondent. It is undoubtedly worthy of trial, and we hope some of our readers will test its merits, as Mr. **Iverson** informs us that he will be able to furnish the seed the coming summer, with directions for its culture.

"How to Prevent Birds from Pulling Corn."—The method which I have practiced for some years past, has been to stir the corn in warm tar, about blood warm, until the outside of the kernel is covered with a thin coat of tar. Care should be used not to make the tar so hot that when spread on the kernel, it will form a hard coat, impervious to moisture. Should this be the case, the corn will not germinate, and the preventive in this case will be as bad as the evil which you wish to obviate. Two table spoonsful of tar to a quart of corn, is a sufficient quantity. Stir in with the corn, plaster or wood ashes, for convenience in dropping. I have never known but few hills of corn destroyed, by birds or squirrels, where the corn was prepared in this way.

The grain should be covered deep with loam, in order to be certain of its coming up.

The corn might be soaked in *saltpetre water*, previous to rolling in tar, in order to facilitate its coming up. **Calvin Allyn**. *Uncasville, Conn.*

Good Farming.—A correspondent wishes to refer our readers to the farm of **Alpheus Morse** of Eaton, Madison Co., as an example of good farming. It consists of 125 acres, bought six years since, and Mr. M.'s improvements consist in the improvements in fencing—the repair and addition of farm buildings, the perfection of which, the barns especially, cannot easily be excelled at an expense warranted for a farm of that size—the stocking the farm with Short Horn cattle, which, by the way, are soiled or fed with green food during the summer. Our correspondent says:

"I shall not here go into particulars, hoping that many of your readers may at some future time have an opportunity of seeing them; also of learning as I did from Mr. Morse's own lips, his mode of using fertilizers, and saving as well as making manures. He has an enclosed shed into which he wheels all the droppings from his stock, and another similar shed into which he carts swamp muck, and this is so situated as to receive all the drain from the yard. In addition to this, he uses about twenty tons of plaster yearly. He also informed me that he was dressing his farm with lime at the rate of forty bushels of stone lime to the acre, which is sufficient for ten or twelve years. I think that he spreads it on the ground, and then plows it under. A portion of the plaster is used for littering the stables during winter, and is carted out with the manure"

Cumberland County, N J.—Cumberland County is perhaps as well situated for farming purposes as could be desired; bounded on one side by Delaware bay, and intersected by three large creeks, making the facilities for the transportation of produce easy and cheap, either to New-York, Philadelphia or Baltimore. We have a soil unsurpassed for the production of all kinds of grain, vegetables, fruits, &c., and an amount of intelligence and practical knowledge of farming brought out by our close proximity to market, and attention to education and reading useful Agricultural works, which would compare favorably with any portion of this country. We have an Agricultural Society in a flourishing condition, which held its first Exhibition last September. Our Club is in its infancy yet, having been established little over a year. We have tried some experiments with success, and have Committees appointed for further trial the present year. P. Ludlam. *Bridgton, N. J.*

Capital in Farming.—As a young beginner, I felt much interested in your article on "Capital in Farming," and think it must be of much service to many others. Your estimate at two thousand dollars is a fair average perhaps, but could be more justly increased than diminished. In this county, stock would cost as much as $400 more, and to which might be added as necessary expenses for the first year, $100 for provisions not produced upon the farm, making an aggregate of $2,550, a sum which should discourage any young beginner from going in debt for his land. Capital rightfully invested will encourage us to be *capital* farmers, but when it is thoughtlessly applied, it will make us *un*-capital ones. J. M. S. *Orange Co., N. Y.*

Heating Houses.—Being about to erect a country residence of bricks—about 1700 feet basement area, 1½ stories high—the question arises how shall I warm it these cold winters when fuel becomes scarce. I consulted my friends, whether stoves or hot air would be best; the yeas and nays were about equal. I had resource to the Albany Cultivator, Genesee Farmer and Canadian Agriculturist,—all I believe are silent on this important subject. Now Mr. Editor, will you or some of the scientific contributors to your unparalleled paper condescend to benefit me, and perhaps many other of your subscribers, by throwing a little light on the subject, taking comfort, economy, durability of furniture, cleanliness and neatness of apartments and health into consideration. I find one great objection to hot air is the difficulty of conducting the rarified atmosphere through horizontal conductors to the remote apartments. Another is, the dryness is a destruction to the wood work and furniture in and about the house. Another objection is that the air is so dry as to be oppressive, causing a disagreeable lassitude and often a headache.

This question, if settled upon scientific principles, nd actual experiment, whether stoves or hot air is preferable for warming a dwelling house, will much oblige your very obedient humble servant. Charles Booth. *Lynn, C. W.*

Decomposition of Soils.—Query. Do green crops when buried in the soil, undergo such a fermentation (*acetous*?) as to decompose certain portions of the soil, and thereby render them available for the food of crops?

In my native country (England,) a poor man once had all the mould of his garden carried off for the purpose of manuring poorer land, and had nothing left in it but the strong clay subsoil. He tried an experiment, which was to thoroughly dig through his garden every week to the depth of about fifteen inches, during several weeks. He afterwards sowed his garden seeds without manure, and never had a finer crop.

Again—near to where I lived was a small tract of country, about the poorest that I ever saw; the subsoil was sparry, pebbles and sand of the same nature. This was used to a considerable extent for macadamizing roads, garden walks, &c. It was reckoned to be no better than poison to be laid on fertile lands, yet a person having carried some to a considerable distance to lay a garden walk on a soil of a very different nature, soft slate mixed with clay, obtained the finest grass where the gravel was laid that he ever had on his farm.

Sound Advice.—A word in the ear of the young farmer, especially on a sandy soil. *Keep as much stock of cattle, sheep, hogs, and poultry, as you can, and convert as much as possible of the crops into animal substance—save all the manure and offal, feed the land with it, and you will soon find that the more stock you keep the more you may keep.* S. J. *Grand Mound, Wash. Ter.*

Protection from Birds, &c.—While I am writing, I may as well give you a receipt for preventing birds, squirrels or mice, disturbing corn, Osage orange, or in fact any kind of seed after it is planted. I have found it very little trouble, and effectual:—One tea-spoonful of arsenic, mixed with one pint of dry corn meal. Put one table spoonful in a heap on the ground, wherever the squirrels or birds are troublesome. Henry J. Chase. *Robin's Nest, Ill.*

To Destroy Liveforever.—In answer to H. Stone's inquiries, for an effectual method of destroying liveforever, J. L. Edgerton advises him to spade the turf about six or eight inches deep, and throw the whole mass, tops, roots, and all, into the hog pen, and S D. Goodwin reccommends plowing and packing in heaps, with salt and lime. This may destroy the liveforever, but in either case the operation must be very tedious I think a better way is to make a strong brine—old fish, beef, or pork brine will do—and apply it to the liveforever, as this *will* kill it without any *digging*. It has been stated that salt *will not kill liveforever*, but is a mistake, for I have given it a fair trial, and I am satisfied that it *will* kill it. Tylee.

Hay and Cattle Scales.—Why do so few farmers have a scale to weigh demestic animals, that they may know the value of improvement compared with cost? That they may know the quantity of hay and other farm products sold, and not be obliged to guess? Doubtless many will answer, it is because the scales cost so much.

Mr. C. Bartholomew, of Etna, Tompkins county, has just put one up for me, which appears to be as durable, and to work as accurately as any I have ever seen, and still the price is so much below that of Fairbank's and others, that most farmers may find it for their interest to purchase.

My scale has been in use but one week, and it has saved me half what it cost. E. Marks. *Camillus.*

Onions as a Field Crop.

Why is it farmers pay so little attention to the cultivation of the onion? Aside from the peculiar flavor for which it is so universally esteemed, the onion contains, in the dry state, about 30 per cent. of protein compounds or "flesh-forming principles." Twelve tons of fully matured onions is an ordinary crop. Under good cultivation, much larger crops are frequently obtained. In 1853 Mr. J. Longfellow of Byfield, Mass. raised on half an acre 386¾ baskets of ripe onions, weighing 57 lb. per basket. This is over 22 tons per acre. In the same year Mr. Ephraim Brown of Marblehead, Mass., raised 407 bushels on half an acre. This would be over 23 tons per acre. One of our subscribers at Chester, Orange Co., N. Y., raised in 1850 on nine square rods 64 bushels, or 1,138 bushels per acre. This is over 32 tons per acre. Amos R. Cole of Perington, N. Y., states in the last volume of the Country Gentleman that he has raised on "a single half acre 368 bushels." This is about 21 tons per acre. We might probably instance larger crops by a little search, but our object is merely to show that onions, considered simply in regard to the nutritious food which may be grown on an acre, are well worthy the attention of farmers. That onions are a healthy, palatable food, when properly cooked, there can be no doubt, and yet how few farmers raise 20 bushels a year? How seldom are they seen on a farmer's table? We fully believe that twice the amount of nutriment can be raised, in this climate, from an acre of onions as from an acre of potatoes. There is therefore no good reason why they are not more generally grown, for should the market be over-stocked, and the price come down, they can be consumed at home with better economy than potatoes. The fact is, onions are better adapted to our dry, hot summers, than potatoes, turnips, &c., and it is surprising they receive so little attention. But, you say, they require much more labor in preparing the ground, sowing and weeding. It is true they require a little more labor, but if the ground is thoroughly prepared, and manure free from seeds is used, and the onions are sown in rows 15 inches apart, and the hoe is run through them as soon as the onion plant can be distinguished from the weeds, the trouble and expence attending the onion crop need be but little more than that of other hoed crops.

At present prices the profits of a good onion crop are enormous. At the last Legislative Agricultural Meeting in Boston, it was stated that "Mr. Buxton of Danvers realized a *net profit of* $400 from two thirds of an acre of ground in this vegetable, last year. He kept the onions till they brought $2 per bushel." *Six hundred dollars per acre net profit* ought to satisfy every-one that the culture of onions is worthy their attention.

It is difficult to say what soil is best suited to onions. A dark, sandy loam is generally considered as good as any. A good method of preparing it for the seed is to plow the land early in the fall, turning in 12 or 15 loads of well rotted barn yard manure per acre. Unless the manure is applied in the fall, and is well rotted and incorporated with the soil, it is apt to cause much trouble in hoeing. On very light soils, the seed may be sown in the spring without plowing again. If plowed, care should be taken to rake into the furrow any manure that may be turned up, leaving the surface smooth. Sow the seed with a hand drill; six to eight lbs. per acre, in drills 15 to 18 inches apart. Some will think this too much seed, but it is better to have too many than too few plants, as it is easy to thin out. The plants, however, must on no account be left too thick in the rows. Care must be used not to bury the seed too deep. It is desirable to sow as early as the soil is in good working condition. Late sowing is one of the principal causes of scullions.

We have used Peruvian guano, sown broadcast, with good effect on onions; but the best method of applying it is in solution, if it can be accomplished. If applied in the dry state, sow it very early in the spring, and plow it in. We have never used superphosphate of lime on onions, but as it is known to have a remarkably beneficial effect on turnips,—favoring the formation of bulb, with but little development of leaf—it is not improbable that it will be found an excellent fertilizer for onions. It may be sown in the drills with the seed. There is no danger of its retarding germination, unless it is mixed with a large quantity of guano or other organic matter. The high price of onions render it probable that good Peruvian guano or good superphosphate of lime, can be used with considerable profit on this crop. The cultivator will not forget, too, that these manures are free from seeds.

The large Weathersfield red onion is a well known and popular variety, somewhat earlier than the *white*, which is preferred by some. The *silver skin* is also highly esteemed.

If sown by hand, it is well to soak the seed in tepid water 24 hours, and dry it with plaster, before sowing. The seed is sometimes soaked by those who use the drills. In this case it must be allowed to dry in a warm room of itself, or the drill will clog.

"Onions and weeds do not agree well together in the same bed." To grow good onions it is absolutely necessary that they be kept clean. The hoe and the fingers must be used as long as a weed is to be found. It is best to hoe slightly, and not stir the ground any deeper than is necessary to destroy the weeds. Deep and frequent hoeing close to the onions, it is said, induces a large growth of tops at the expense of the bulbs.

Fencing and Fences.

What shall we use for fencing, and what kind of fences shall we make, are questions that may properly claim the attention of the agricultural community at large. White Oak for posts, in many sections of the country, is yearly becoming more and more scarce. The same remark in some measure will apply to chestnut and cedar rails; the latter especially, have much advanced in price, and being cut for the most part out of young and sappy timber, are not found to be as durable as formerly. A post and rail, (either four or five hole,) when new and in good order, forms a neat and substantial,and while suitable timber can be procured at a reasonable cost for its construction, cannot well be dispensed with, for a road-side fence—for *division fences*, it is now in a majority of cases thought to be too costly. The posts sooner or later decay, and the rails when sharpened, are not well adapted to a common *worm fence*, nor can they be used in that way, except by increasing the number of rails to the panel.

The *rod-fence*, not many years since, was first introduced in this country, where, if I am correctly informed, it *originated*, and from whence it seems to be making its way in other places more remote. In point of durability and economy, this kind of fence will probably compare well with most others now in use. It certainly possesses several advantages over the common *worm fence* with two stakes and a rider to the panel, some of which may be enumerated:—1. It occupies less space and requires a smaller number of rails.—2. It is more durable, and less likely to get into a situation calculated to invite animals to jump over it.—3. It is less in the way in plowing and harrowing, and when turning the team on the headlands.

I will now describe the most approved plan, or mode of making this kind of fence, that has come under my notice. The rails should be cut of a *uniform* length (say 11 feet,) and split as near of a size as may be; and when carted to a convenient place, the holes can then be bored with a half inch auger (one fitted to the socket of a brace will be found most *convenient*)—and by means of a narrow strip of board or an oak lath, this can be done with *accuracy*, first placing the rails on trussels. The holes should be bored *vertically*, and as near to the end as practicable, a secure bearing, one on the other, being all that is necessary, and a four feet *worm* is considered quite sufficient in laying the rails. The rods may be cut four feet, or a little longer, if preferred, but the length named will be found in most instances sufficient, with a good stone block under the joints. Drilling a hole—which in ordinary building stone can readily be done just deep enough to prevent the rod from slipping, will be found to repay the expense and trouble, as it obviates in a great measure the necessity of setting in upright posts at intervals to prevent the fence from being overturned by high winds, on bleak and exposed situations. The stones soon become imbedded in the soil, and are found to be an *additional*, if not of themselves an ample security. Chestnut rails being heavier than cedar, are on that account preferable, and can frequently be procured at much less cost. Hemlock scantling, 3 by 4, can be bored with the same auger, and then sawed into short blocks to drop on the rods and come between the two upper rails. A rail to the panel can be *saved* in this way. Seven and eight rails are frequently used in the common worm-fence—five and six in the kind above described.

As regards the one, the stakes soon rot in the ground, and in the spring when overhauled, though they may seem secure, they are liable to get thrown out with the plow, or if they escape that, cattle and horses rubbing against them do the work no less effectually, and when this is the case, and the *sides* thrown off, even though they may be *thorough bred animals*, when you go to look for them (like politicians of the same stamp,) there is no telling which *side* of the fence you will find them.

The cost of the *rod-fence*, to the panel, will of course vary in different locations—rods can be procured at city prices I presume for about 7 or 8 cents each. Stone blocks of suitable size are here worth about three cents. C. *Salem Co., N. J., 3rd Mo.* 22, 1855.

Culture of Carrots.

I was much interested and I doubt not instructed, with your article last week, headed, "Seed Time and its Labors"—more particularly that portion of it refering to carrots, as I have been attempting the culture of them for two or three years recently. And without claiming anything like proficiency in my own knowledge of their cultivation, and being perfectly aware that in this, as well as all other branches of agriculture, we are in comparative ignorance—allow me to take exceptions to one or two of your suggestions in the article above mentioned.

And first, as to the time of sowing. You say they "should be sown as early in May as the season will allow." My own limited experience teaches me, that in ordinary seasons, the first week in June for our vicinity is preferable, for the reason that if put in before the earth is fully warmed, the seeds are so long in germinating, that the weeds are very apt to get the start of the plants and completely choke them, more especially if the season happens to be at all wet.

I plow in a heavy coat of manure as early in the spring as possible, to the depth of 14 inches, using your directions as to raking the manure in the furrows, and completely covering the manure. I let the land lie in this state until 25th of May, when the manure will have become quite rotten—then cross plow same depth, and harrow thoroughly with a harrow specially prepared for this business, teeth being of wood and 15 *inches long*, and thus pulverizing the soil its whole depth—then take a common 28 tooth square harrow, and thoroughly pulverize the surface—then take my roller and pass once over the land—this is to crush the small lumps of earth, which, in soils at all inclined to clay, are greatly in the way, especially in sowing the seed—then again after rolling, give a light harrowing to loosen the surface of the soil. Don't be afraid of working the soil too much and getting all the small lumps to pieces, as it is, I conceive, of much more importance in root crops than with grain.

When prepared in this manner, I take a cord and draw across the lot to be sown on one side, which gives a straight line for the first row. Then take a marker made so as to make the marks 14 inches apart, which I think is about right for soil made sufficiently rich, and no other should be ever put to roots. Let the outside tooth of the marker run by the line, and thus you have a straight row to commence with. Next time across, let one outside tooth of the marker run in the last row, and so on. If your rows get crooked, draw your line across the field again, which will soon straighten matters. When a few rows are thus marked, take your machine, (and every one who raises roots in any quantity will need one,) and follow the marks—allowing the marker to be only a few rows ahead, so the rows can be readily distinguished.

I consider the great secret of success in raising carrots successfully, is in weeding them the first time, in season. A *day or two* delay, at this period, will certainly be the means of losing the entire crop, especially if the season be wet. I have seldom known a man but failed in this respect, on his first trial. I sowed carrots two years before I harvested any. In 1853, I harvested 550 bushels—in 1854, 1200 bushels—the last season at the rate of 800 bushels per acre—by actual measurement.

As you remark, I consider the raising of roots, and feeding them on the farm, one of the most successful means of raising our land in our power. If 15 to 20 tons of good feed can be raised from an acre, which for all feeding qualities, is as good as that amount of hay, (is it not?) why ought not this to satisfy any intelligent farmer of the practicability of the thing? Wm. J. Pettee. *Lakeville, Conn., April* 4, 1855.

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Guano for Corn.

Luther Tucker—I have a 7 acre field which was planted with corn last year, but, owing to the drouth and the depredations of worms, I obtained but half a crop. I am desirous to plant the same field again this year. I have *run out* meadow enough to use all my manure upon, which I wish also to plow. Would it do well to put a dressing of guano on the old field? How much per acre? To whom can I send an order with a certainty of getting a good article? and what will be the best method of application? Answers are requested through the Country Gentleman, which is a most welcome weekly visitor. N. Bottum. *Shaftsbury, April* 5, 1855.

Guano will, probably, give you a good crop on such a field. We have had our doubts, however, whether you get *sufficient increase* to pay for the guano. Try it and report the result. Peruvian guano for corn *will pay*, if any artificial manure will. Use from 200 to 500 lbs. per acre. In regard to its application, there is much difference of opinion. The *safest* way is to sow it broadcast early in the spring, and incorporate it as much as possible with the soil before planting. If the summer should be one of drouth, this would certainly be the best plan. Another method, used with success, is to prepare the land, and mark it both ways, and then scatter, where the hills will be, on say a square foot surface, the proper quantity of guano, and mix it well with the soil; a little soil that has no guano with it, should be drawn on to the hill with the hoe, and on this plant the seed, and cover it with soil without guano. Unless these precautions are used, the guano, if applied in the hill, will assuredly injure the seed. If due care is exercised, and the weather is not too dry, this mode of application is the best. If the rows are 3 feet apart—the usual distance we believe in New England, though 3½ to 4 feet apart is more common in this vicinity and in western New-York—one ounce in a hill would be about 300 lbs. per acre. There is no advantage in mixing plaster with guano, unless you wish to apply plaster for its own fertilizing value. As a general thing, plaster has the best effect when applied to corn previous to the first hoeing. Genuine Peruvian Guano can be procured of R. H. Pease in this city, and of R. L. Allen and A. Longett, New-York—or in large quantities of the Agents of the Peruvian government.

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A New Method and a New Machine.

Some years ago, a Mr. J. S. Gage, of Michigan, was informed by an intelligent English farmer, that wheat was sometimes dibbled in by hand in England, and that premium crops were almost always thus put in. He stated that dibbling in was greatly superior to drilling, as drilling is superior to sowing broadcast and dragging, or harrowing in, insomuch that wheat dibbled in, would yield from five to ten more bushels per acre than that put in by any other process. Dibbling in, can be performed only when there is a great abundance of cheap labor, for it is performed by a large number of hands put upon the field after it is all prepared for the seed. Each laborer is equipped with a sharp stick or dibble, and a bag of wheat. A hole of the depth of two or three inches is made in the mellow earth, into which are dropped two to four kernels of wheat, and then it is closed up by brushing some mellow earth over with the foot. Finding from others who had seen this process, that wheat thus dibbled in, produces better than when drilled, or even when drilled and afterwards rolled with a heavy roller, he set himself to thinking, in order to determine what could be the cause of this superior yield. He seems to have rested, at length, in the conclusion that it was because the ground is pressed before the seed is put in, and afterwards covered with a light mellow soil.

Dibbling in after the English fashion being a thing wholly unsuitable to the circumstances of the American farmer, Mr. G. set himself to work to invent a dibble that would meet the wants and go-ahead tastes of Young America. His machine which is at once a roller, a drill, and a dibbler, is described by Mr. G. in the Feb. No. of the Mich. Farmer. He takes a good double roller, and raises sharp ridges 3 inches high around it, made of cast iron spiked on. The ridges are placed at the same distance apart that he wishes the rows of wheat to be. As the roller passes over the ground it leaves, of course, creases or gutters 2 to 3 inches deep, as thoroughly pressed as a dibble stick would have done it. "A hopper made on a new plan, and costing only two dollars, is placed behind the roller to hold the seed which is conducted by tubes to the gutters in any desired quantity. This hopper is operated by a hand wheel attached to the end of the roller. Some blocks made of 4 by 4 inch scantling hang loosely behind to cover the seed, and this finishes the work in the most satisfactory manner."

Mr. G. states that he has used such a machine for 3 years, but does not say whether or not he has found it produce as large crops, comparatively, as the dibbling process in England is said to do. The public would, doubtless, like some information on this point.

Hedges.

It has been asserted, and doubtless with truth, that the cost of FENCES throughout the country, is *twenty times* as great as the value of all the specie within it. No apology is therefore required for occupying some attention with the subject of hedges; and we hope valuable and reliable knowledge may result from investigations on the subject.

We have received two communications from men of experience, in reply to the inquiry of our correspondent A., a few weeks since. They both reside in the same district of country, and are both strongly in favor of the English Hawthorn. Although differing from them somewhat in opinion, we give the substance of their remarks, in order to throw all the light we are able to do on different sides of the subject.

In England, the business of "hedging and ditching," is a trade of itself, requiring much experience and some skill. Hence the reason that English farmers in this country are more successful in their experiments than others; and usually employing the hawthorn, they give this plant a favorable chance for comparison with other hedge plants. On the other hand, the Osage orange at the west has been commonly planted by those who have little knowledge of the treatment of hedges, and many of their attempts, as a matter of course, have signally failed.

Failures in hedging result from *two* CLASSES of causes, and differences in opinion and misjudging, often arise from confusing them. The first class of causes, consists of all the different kinds of *bad management* merely—defective planting, gaps, *want of cutting back*, neglected tillage, &c. *All these may be remedied.* The second class, results from defects in the plants themselves, as want of natural hedginess, stoutness of growth, want of thorns, liability to the attacks of insects and diseases, &c. *These generally cannot be remedied.*

On rather moist, rich, and not very heavy soils, we have observed the hawthorn to do admirably in Western New-York during the first ten or fifteen years of its growth. We have seen a beautiful hedge of it, twenty years old, that promises to endure a hundred, so far as we can see at present. But on *ordinary soils*, it has more commonly failed before twenty years old. There are two farms in western New-York, one in Ontario county, and the other in Niagara, mostly fenced with hawthorn, that for a few years promised every thing that could be expected, but are now becoming full of gaps, dead plants, and as a consequence, those peculiarly unsightly appearances, holes stopped with rails, dead brush, &c. But the most discouraging fact, is the disaster which occurred many years ago at the east, where the loss of the hawthorn hedges, after they had been generally adopted and relied on, by a sudden attack of insects, was estimated greater in a single township, than if all the dwellings had been destroyed by fire. We do not know but such a disaster may be repeated. All plants belonging to the same natural order as the thorn, apple, &c., are liable to the attacks of the *borer.* The native Newcastle thorn, after being considered unobjectionable and infallible for many years, was destroyed in great numbers by this insect.

The buckthorn possesses eminently two advantages, poison to repel all animals from touching it, and extreme hardiness for transplanting. But the ground for it must be made *very rich*, and the cultivation must be of a high order, or its growth will not be strong enough. With such treatment, we have seen it made into strong barriers. The stretched-wire, recommended for the privet by our correspondent B., would probably render the defence very complete. Its want of thorns is a decided objection, when required for fruit gardens.

The Osage Orange is tender—but after many years observation, we have not found this to injure its qualities for a hedge. Young plants sending up shoots six feet the first season, will be killed back no further than these shoots should be sheared—and when older, slower growing, and protected by being in a thick hedge, we have never had more than a few inches of the shoots killed, even when the thermometer has sunk to 8° or 10° below zero. It is incomparably the most thorny hedge plant we have seen, *every inch* of every shoot furnishing a sharp stiff spire. On soils at all wet, it should be placed very nearly over a tile drain, which will greatly contribute to its hardiness.

We do not mention these facts for the purpose of controverting the opinions of our correspondents, but merely for suggesting inquiry, and to enable our readers to judge for themselves with the assistance of what light we can furnish them. Facts, distinctly stated, and experiments with their duration mentioned, and not merely *opinions*, from those who have made experiments with a full knowledge of the requirements of successful hedging before them, will always assist correct conclusions on this subject.

Seed Onions.

It is a matter of some surprise to find that most, if not all, of the vegetable growers of this vicinity, depend upon buying the sets of this, to them, valuable crop, instead of growing them themselves. Valuable, because it brings in an early return of a very saleable article, green onions; and the ground is clear in ample time for the main crop of turnips. We saw recently a pile of these small onions, probably two bushels, which cost the nice little sum of *thirteen dollars*, which, had they been grown at home, would have been so much added to the produce of the garden, and that not a very extensive one. It was suggested that the method of growing them should be given in the *Country Gentleman*, which might lead to their being grown in this vicinity, at least for home consumption. It is simply as follows:

Sow the seed as early in April as the weather will permit, very thick, in shallow drills, six inches apart. Keep them thoroughly clean of all weeds, and allow them to remain without any thinning. By the middle of July, they will be about the size of peas and beans, when they are taken up, harvested, and stored away for next spring's use.

In the neighborhood of Philadelphia, hundreds of acres of onions are grown for shipment to the southern market; and most of the gardeners there plant these small onions for permanent crops, instead of sowing the seed. It is generally thought that the onions come larger; and another thing, which is important where so much breadth is occupied, is that they are easier cleaned, requiring but little hand labor. EDGAR SANDERS.

The Plow—An Improvement Wanted.

In the report of a Lecture by the Professor of Agriculture in the University of Edinburgh, we find the following remarks, which contain a suggestion well deserving of consideration, especially by those of superior mechanical genius. There are, we know, two implements by which the defect of the plow may be obviated, or its results remedied, in part—grubbers and subsoil plows;—but probably there may be now latent in some brain of superior mechanical powers, a yet more excellent way? To indicate and point attention to a *want*, is, at all events, one of the most likely ways of obtaining a *supply*. For this reason we think the hints subjoined, should be widely scattered, that they may find a fitting soil in which to take root and bring forth fruit. We have condensed and abridged as much as possible.

Although the necessities of man compel him to use the plow in preference to the spade, it is admitted by all, that the work done by the two implements is of a very different character, the plow leaving the soil in a condition far less suited to the purposes of vegetation than the spade. This is more prominent on heavy soils than on light. By the operation of the spade the soil is left loose, the original surface with its weeds and exhausted mould, being completely buried, and a fresh surface exposed. But the plow is a tool of a rougher nature. It is, in reality, a wedge forcibly dragged through the soil at a certain depth, *lifting up* that portion which is *above it*, at the expense of making that which is *below it more compact*, this latter receiving virtually all of the force required for the separation. The consequence is, that more or less, according to the soil, this lower surface is compressed to such a degree, as to leave a dense and compact surface, through which the roots of plants must find it difficult or impossible to penetrate. The furrow slice, too, instead of being completely inverted, is not turned over to more than one-half or three-fourths of the way, the surface weeds are imperfectly buried, and the soil is not changed to the same extent as by the spade.

The *great desideratum* in practical agriculture is, therefore, to obtain an implement that shall have, like the plow, the capability of doing a large amount of work, and like the spade, of doing it in such a manner as to satisfy those conditions which we consider desirable for the purposes of successful cultivation. Many implements and machines have been constructed, and much skill and ingenuity from time to time expended in the endeavor to realize this great desideratum; hitherto, however, the results have not been very satisfactory. In no form of it, does the plow cultivate thoroughly; it requires to be followed by roller, or harrow, or other tools to complete the work, which after all is not so well done as by *one operation* of the *spade*.

What we want is, not *plowing* so much as *cultivation*, or that process of disintegrating and fitting the soil, which the *farmer* by necessity performs by three, four or five separate operations, and then not so effectually as the *gardener* accomplishes in *one*.

Prof. Liebig's New Work.

The Relations of Chemistry to Agriculture, and the Agricultural experiments of J. B. Lawes. By Justus V. Liebig—published by Luther Tucker, Albany, 1855—price 25 cts.

After reading Liebig's pamphlet twice, I came to the inevitable conclusion that if the charges against his mineral theory, (endorsed as they are by Mr. Lawes, Pusey, Wolff and others,) are not true, the evidence contained in this *brochure*, is sufficient at least to show that the great German chemist and distinguished author is obnoxious to the implications of his opponents by the pertinacity in which he still clings to the main points in his first theory; and the ingenuity and special pleading he employs to lessen the value of any considerable artificial application of the salts of ammonia to growing crops. It would seem that the learned Professor had been somewhat mystified by the great success of the first practical experiment of his mineral application, on a soil which of all others was perhaps the most thoroughly exhausted of all the mineral and organic constituents of vegetation; for he tells us that the whole ten acres would not give the vegetable *de quoi* "to feed one sheep." But what his success might have been with the minerals alone, he leaves us without the means of knowing, as he did not risk it singly on a single plot of ground, as each one was also treated with either stable-dung, saw-dust, forest scrapings, or other refuse, all containing nitrogen to form ammonia in the soil. And may we not also infer that it was the ammonia formed in the decomposition of matter, and from the refuse of crops, which he says were "fed or left on the ground," that kept up the four years increasing fertility of the soil. But if the Baron does not yield to Mr. Lawes' theory of the necessity of extra ammonia salts, his unlearned gardener, who succeeds him as proprietor of the ten acres, carries out Mr. Lawes' theory to the letter; for the Baron himself tells us that this man kept "two cows and several head of cattle" on these ten acres, and that "all the *animal excrements* produced on the premises, and especially the *urine*, were collected with the greatest care, and of course have been incorporated with the soil."

Mr. Lawes' experiments were probably commenced on a soil poor in organic matter, but containing sufficient undissolved mineral elements for a crop, needing only ammonia salts to make them soluble and available to plants. And may we not here premise, without offense to either of these distinguished antagonists, that the diverse nature of the soils on which they each experimented, may account in some measure for the enthusiastic tenacity of each in favor of his own theory; for after all, the theories of both experiments agree as to the indispensability of both mineral and organic food for crops; they disagree only in the details of quantity. But if Liebig has the most learning, he has also decidedly the most enthusiasm, for he tells us that his experiment field will "retain its fertility, if there be as much soil-ingredients (mineral of course) returned to it yearly, as are removed in the crops." He farther says that "a deficiency or excess of phosphate of lime, of alkalies for root crops, of alkaline earths for clover, of alkali silicates for the cereals, was plainly revealed in the growth of these plants. The trial plots appeared (to his imagination) like the *writing on the leaves of a book;* the significance was evident even to the uninitiated." He then adverts to the mineral plant-food left by the refuse on the field; but his less poetical successor, in saving the excrement and the urine of his cattle, seemed to have had more faith in organic manure than in the mineral prescriptions of his master.

Although Prof. Liebig readily admits the necessity of ammonia salts, as a solvent for mineral matters in the soil, yet he thinks that "chemistry will doubtless discover the means of making more easily soluble the silicates and phosphates which are indispensable to the wheat plant." Methinks until such a discovery is made Mr. Lawes will stand absolved for promulgating the theory, that a manure for the wheat plant is "valuable in proportion to the nitrogen it contains." Professor Liebig demurs to Mr. Lawes' experimental proofs that phosphate of lime is the best manure for turnips in the face of the analytical fact that turnips contain but little phosphate of lime; hence he attributes the value of the phosphate of lime to turnips to be due to the sulphuric acid, and not to the bone earth, combined with it. If this is so, why is not gypsum, a much cheaper article, the best manure for turnips? and Liebig himself tells us that gypsum soon gives up and saturates the soil with its sulphuric acid, and becomes a mild carbonate on the surface; vide his garden experiments.

But this little pamphlet of 86 pages, does more honor to Prof. Liebig than the Baronial handle to his name. It should not be said of him that "too much learning had made him mad"—only a little over enthusiastic; and I would ask what of true greatness was ever attained without enthusiasm? As grease is necessary to machinery to overcome friction, so is enthusiasm the intellectual grease of the brain without which it would cease to be in working order. Let every farmer who wants to know and believe that his calling is more intellectual than a mere system of physical drudgery and hereditary recipes, buy this book, Liebig's last publication on the "Relations of Chemistry to Agriculture."

I apprehend that much credit is due to Mr. S. W. JOHNSON, for the rendering of the German of the original into English. Had it been done by a mere *litterateur*, who had no knowledge of agriculture or its chemistry, much that is now plain and simple to the reader, might have been unsatisfactory, if not technical and obscure. N'IMPORTE. *Waterloo.*

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TRAINING A BALKY HORSE.—The *Michigan Farmer* says, a horse became balky in Detroit a short time since, and neither whipping nor coaxing could make him stir. A rope was fastened round his neck, and he was dragged a short distance by another team, but this did not effect a cure. The rope was then taken from his neck, passed between his legs and fastened firmly to his tail. In this manner he was drawn a short distance, and when the rope was taken off, the hitherto unruly animal was perfectly obedient to the will of his master. We have seen this method tried with similar results.

First Year's Experience in Farming—No. IV.

When I first turned my attention to farming, I united with our County Agricultural Society. It was natural to expect a good degree of perfection in an institution of such long standing, and to look for great benefit from its practical workings. I anticipated much assistance from so large and respectable an association of farmers, and I have not been entirely disappointed. It is not to be doubted that such societies have effected a vast amount of good. While I cheerfully concede this, it is but justice to add, that as a means of instructing and improving farmers, and elevating them as a class, they essentially fail of their object.

Those who most need instruction, do not join the societies, and are not reached. Many among those most capable of instructing and improving their less informed brethren, act as if they considered their superior acquirements a special property, and no more to be communicated to others than any of their real or personal property. While many, whose counsel and influence would tend to elevate, and enoble their fellow-farmers, stand entirely aloof from the societies.

Besides, the energies of the agricultural societies seem to be mostly expended in getting up the Annual Fairs. Now, the fair should be but an *incident* of an agricultural society—not its end and result! The great object should be, to gather and disseminate practical knowledge among all classes of farmers. To make, publish and circulate, reliable experiments—to investigate the laws of science applicable to agriculture—to create and diffuse among the farming community, and especially the sons of farmers, a deep interest in, and a strong attachment for, the most peaceful, dignified, and enobling pursuit of man.

If these objects were kept steadily in view, more would be really benefited, interested, and enlisted in the societies.

A good fair, which presents an exhibition of extraordinary products of the soil, domestic animals of rare excellence, superior implements, &c., leaves a permanently valuable impression. It elicits a laudable rivalry, and raises the standard of excellence. But a fair that does not furnish articles and specimens of decided superiority, has exactly the opposite effect. Visitors turn away from an inferior exhibition, saying, "Is this all! we can show better at home," and they go home with an impression that the agricultural society is a humbug. And such an idea once in a farmer's head, it is apt to stay there!

Not desiring to say anything to diminish the already too little interest of farmers in agricultural fairs, if each society would thoroughly circulate the statements of those who have raised good crops, showing minutely *how* they have prepared their lands and cultivated the crops; if it would pay premiums for the best experiments in feeding cattle, cultivating the different crops, planting orchards, &c., and print and circulate among all classes of farmers, the details of such experiments, I feel sure it would soon awaken a more general interest, and all would feel that they were receiving a more real advantage from the societies.

There is a very general complaint upon the subject of the judges appointed at fairs, the mode of their appointment, and the hasty, imperfect, and often erroneous judgments, they pass upon the articles presented for competition. Judges are *often* appointed, both in the State and County Societies, at the suggestion of interested parties who happen to be present at the day of the fair, who are either incompetent or indifferent to their duties, and the result is, general dissatisfaction.

I have noticed some allusion to this subject and to other defects in agricultural societies, in the Report of the President of the Niagara County Ag. Society, published in the volume of Transactions of the State Society for 1853, to which I beg to refer such of your readers as are interested in this matter.

My *personal experience* in exhibiting, has perhaps increased my repugnance to the hap-hazard way of appointing judges. I ventured to take one animal to a late county fair, and although thought worthy a premium at a previous state fair, and a first premium at the preceding county fair in the same county, my poor Durham Bull failed to attract even a passing glance from the chairman of the judges, (appointed to fill a vacancy) who informed me after all was over, that he was not aware such an animal was on the ground! Civis. *Utica, April*, 1855.

Two Horse Cultivator.

Messrs. Editors—I would like to recommend to my brother farmers, an implement called by some of us here, a *Two Horse Cultivator*, made after the old crotch drag fashion. You want nine cultivator teeth; or you may have less or more, as the strength of your team may be; you can have cast iron, or steel teeth, (the latter far preferable)—place one in front—the others opposite of each other; have the teeth about eighteen inches apart in the timbers, and a drag tooth in each hind end of the side pieces. This is to prevent a track being left by the two hind cultivator teeth. This must be rather longer than the old fashion crotch drag and flare at the ends, or else it will work rather bad. The side pieces should be three inches by five. The teeth must point exactly ahead. Have a hook on top of the forward end, to hitch your team to, and not exactly at the end as we usually do on harrows. This implement will do the work of three common harrows, on land that has been plowed in the fall. I use the harrow once or twice in a place, then go on with the cultivator, and if your ground is dry enough to work good, you get well paid for your labor, for getting in wheat, barley, oats, or any kind of grain. This implement is far before the common harrow. We know how the corn cultivator works, in our corn fields. In like manner does the two horse cultivator work for sowed grain. Z. S. E.

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Leaves absorb and give out moisture, and inhale air; they are, consequently, the most important organs of a plant, and if they are destroyed or injured, the whole plant suffers.

The Bee Moth.

Messrs. Editors.—Mr. B. N. Warner, in a late no. of your paper says: "Will some experienced person inform me through the Cultivator, what will destroy the Bee-moth or worms, and what kind of boxes are best suited to prevent their depredations." This subject being in my line, it may be a duty to offer a few suggestions, even if I fail to answer his questions satisfactorily.

The following is perhaps as effectual as anything. Mix with water, molasses and vinegar in proportions to be palatable, and place it in shallow dishes among the hives at night—while sipping this, the moth is apt to fall in and drown. Also, put up a cage or box for the Wren; he is a valuable assistant, and will pick up hundreds of moths and larva. Crush the heads of all the worms found under the hive, particularly in spring. After the hive becomes full of bees, and the worms are no longer found on the floor, split elders lengthwise, scrape out the pith, and lay them pith side down on the floor—a great many will creep inside to spin their cocoons;—they should be destroyed once or twice a week. Having found most of these remedies in some agricultural papers, I have tried them to some extent; they are good as far as they go, because every moth or its larva destroyed is one the less; yet there are always "enough more left of the same sort," to eat up the contents of any hive left exposed.

As to "what kind of boxes" (hives I suppose) "are best suited to prevent their depredations," I would say the hive "*best* suited" to the wants of the bee. I use the common hive, and for the last twenty years, the loss of stocks by the moth has been less than one per cent.

I presume Mr. Warner is like thousands of others, who suppose the moth the principle cause of failure in Bee-culture, and flatters himself that to get rid of *them*, success would be next to certain; hence the inquiry for some particular hive, and means to destroy them. I would advise him and all others, who expect success with bees, to depend on nothing of the kind—it will prove a "broken staff." A moth-proof-hive, is not yet invented—shall I say, never will be. To save from the worms the contents of a hive in warm weather, accessible to the bees without *them* to help defend it, is beyond the skill of the apiarian. I can assure him that nine stocks in ten destroyed by the moth, would be as effectually lost without them. Consequently, we must go beyond these effects for the cause, the worms are only secondary or carrying out some other fatality, and are found in the last link of cause and effect instead of first. Prevention is better than cure. Let us study the causes of a failure of the bees,—the natural guardians. Keep the stocks strong in numbers, and *they* will *defy* the attacks of the moth. Here then is the whole secret of success—it is first and last, and all important. M. Quinby, *Author of Mysteries of Bee-keeping. Palatine Church, N. Y.*

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Fences.—It is estimated that the *fences* in this country cost *twenty times* the amount of all the specie in it.

Potatoes for Ewes and Lambs.

Wm. E. Wheeler states in the last number, that his sheep, wintered on oats, corn (and hay ?) until they began to lamb, then on potatoes, *do not give milk*, and the *lambs die*. His sheep were better fed than most sheep, and it is to be presumed were in good condition. Under such circumstances it is unusual for the lambs to die. Nature had no such intention, and has been thwarted by violence. There is a cause, and it should be discovered.

One of my neighbors, who keeps large and vigorous sheep, wintered in the same manner on hay with corn and oats, and at yeaning time changed in the same way to potatoes, obtained from the experiment precisely Mr. Wheeler's result. The loss of his lambs was so unusual and great, that *he* is convinced that potatoes were the fatal cause, and would now as soon feed his yeaning ewes with ergot. If this opinion is correct, it can be proved only by the cumulative evidence of like results from *many* experiments; but although the above two do not fully prove any thing, or justify belief, they *should* excite inquiry and direct a careful observation.

In reply to the question of best food for ewes and lambs, I would suggest that no change of food should be made *suddenly*. When the food is changed, there is a necessary change in the animal machinery of digestion and assimilation. This change requires a certain time during which the wants of the animal are not fully supplied.

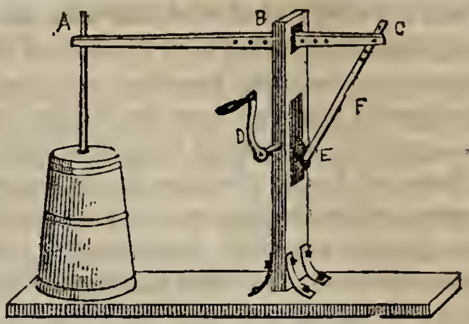
2d. The change when made, should not be from *more to less nutritious food*, as from corn and oats to potatoes; and

3d If a change must be made, it should not be at the critical period of parturition.

During gestation the food should be not changed, but slightly and carefully increased until the last few weeks, when it should be alike until the lamb is two or three days old; then increase the food without much fear.

The best food for sheep is grass, and there is no equivalent. In winter I have had best success with hay made from small herds grass and clover on dry land, and yielding a ton or little more to the acre. Give as much as they will eat. Corn and oats mixed, once a day, and some roots or green food (usually ruta baga or turnip) once a day. Some soils are not adapted to sheep, and on such the flock requires greater care and more feeding with grain. When the lambs come in the winter, it is desirable to keep up the condition of the ewe, but if she is a good nurse this is hardly to be expected.

It is generally known that I keep only the large New Oxfordshire sheep—that they are great breeders, and good nurses. When these sheep, as is common, have two or three lambs in March, I feed them as well as I know how. Not large quantities of grain, but feed carefully, and yet ungrudgingly—*often* and of *various kinds;* but with all care, the ewes before grass grows, will be lighter than in winter. On grass they rapidly recover, and I never lose a ewe and very rarely a lamb. John T. Andrew. *West Cornwall, Ct., April* 9,1855.



Churning Apparatus.

Mr. Tucker—Please insert in your columns a sketch of a churning apparatus of my invention. It will run as easy, or churn as fast, as any I have ever seen. In the above cut you will perceive that it is of very simple construction, and a man can make one in a day. A, is the mortice that the dasher goes through—B, is the place where the evener is fastened, by means of a bolt; and by moving the evener towards the letter B, the dasher will not move so high—C, is the place where the evener and pitman are joined—F is the pitman—D, is a crank about a foot long—E, is a short crank about 4 inches long, working in a mortice in the center of the post, 1 foot long and 4 inches wide. Edward M. Fuller. *Salisbury, Herkimer Co., N. Y.*

Working the dasher churn by means of a crank, has been previously effected by placing the crank on two supports proceeding directly upwards from the churn, and sometimes the motion has been multiplied by cogwheels; but the latter causes too much friction. In both instances, a fly wheel has been found important; and it would no doubt be a great advantage in the above described contrivance, lessening the labor by rendering the motion uniform. This contrivance appears to possess an important advantage over other crank-arrangements, by admitting any desired variation in the length of the stroke. Eds.

Founder in Horses.

Mr. Tucker—I send you a recipe for founder in horses, which I have never seen in print. I have used and recommended it for fifteen years, and so far as my experience goes, it *is a sure and speedy remedy*:—Take a table-spoonful of pulverized alum, pull the horse's tongue out of his mouth as far as possible, and throw the alum down his throat: let go of his tongue, and hold up his head until he swallow. In six hours time, (no matter how bad the founder.) he will be fit for moderate service. I have seen this remedy tested so often with perfect success, that I would not make five dollars difference in a horse foundered (if done recently) and one that was not. E. L. Perham. *Albany, Oregon Ter.*

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Agriculture is the appropriate employment of declining years; for it may be pursued to the very end of life. Not so the occupations of professional men, for they will find, when the strength of their days is gone by, that younger and stouter rivals will hasten their descent, as they are travelling the downward slope of hostile rivalry.—*Anon.*

Theory and Practice.

Agricultural Science and Scientific Agriculture.

BY S. W. JOHNSON.

Every farmer has a theory. Every sane man performs all his business, in accordance with some rules which satisfy his mind. The chain of reasons which he is able to assign in justification of his actions, is his theory. A man may strike his horse, or break his plow, without following, and indeed in opposition to theory; but all that he does deliberately, and of his free will, he does because he is convinced of its practicability and lawfulness—because he has a good reason for it; or he is no honest man.

The farmer may affect to despise theory, and claim that he is a purely practical man; but he is mistaken. For to suppose that a man can carry out the manifold affairs of a farm, through a whole year and through many years, without some mental basis for his operations, is sheer nonsense. This mental basis is theory, and to take pride "in freedom from theory," is to boast of inability to think.

A farmer follows the same routine of practice that his father did, or he does as some successful neighbor does, or he adopts the plan of A. who writes for the papers; or, finally, he rejects them all, and takes a way of his own. Why does he follow one or the other course? Because, after thinking the matter over, he concludes it is the best. He philosophizes upon it; he considers the arguments for it and against it; according to his ability, he *reasons* on the subject. Neighbor B. told him a bit of experience the other day, which favors his view; Squire C., an old farmer, preached the same doctrine in his address before the County Ag. Society, and so he discusses the point until he arrives at a settled conclusion. The mental process may be a long and complicated one, as it will be in a cultivated mind, or it may be so insignificant and summary that the man may not know that he has reasoned. A man may have a microscopic understanding; he may mistake his own prejudices or fancies for arguments; he may worship precedent; he may have such dulness of observation and apprehension, that he has hardly a dozen well understood facts in his stock of knowledge, or his mind may be so undisciplined that he cannot pursue a logical train, yet he must arrive at a mental conclusion before he acts; his reason must consent to these conclusions. The plan carried out is his practice, and the chain of reasons which convinced his judgment, is his theory.

If he himself only adopts a theory proposed by another, because he knows nothing opposed to it; if he be unable to state the grounds which form the basis of his operations—if he can only say "my father did so," or have no other reason than that so common among old women and children, "because"—however faint may be the spark of intellect that lightens his being, yet he has his mental processes, and their result—the conclusion that satisfies his reason, his theory—must inevitably come from them, and he is mentally if not morally responsible for it.

Many of the opinions that are current in the world are very wrong. Many names are misapplied. In common life, incorrect and incomplete ideas of the nature of theory and practice are almost universal, and hence the term "a theoretical farmer," and "a practical farmer," are often abused, and the good meaning which properly attaches to them is torn from its natural connection, aud replaced by such as belong elsewhere.

What is a "theoretical farmer," in the common acceptation? He who has wild theories, extravagant notions—he who "goes in" for any thing new,—who laughs at what our fathers did—talks immensely of progress, steam-plowing, &c.—he is what was formerly called a "book farmer," until that name became too respectable for such a use.

"Yes, that's your theorist," says a thick stout-built, short-necked individual—"that's your man of theory. I am a practical man. I was always suspicious of theso go a-head folks; they generally smash their heads against a wall. I take it coolly. Reckon experienced old men like my grandfather and my father, and Gen. E., who has farmed it ever since the last war, know something about it. I am grey-headed as you see, and I have brought up my large family comfortably, and have laid by a good sum against old age, and that satisfies me. I love the good old way."

Here we have two characters, both nice men; the first not without judgment, but excessively imaginative; his fancy runs away with his reason. He holds theory, doctrine, to be *very* important, and lets his cattle go without their fodder, while he devours the contents of the Agricultural papers. He hopes sanguinely that the day will soon come, when he may have his soils all analyzed, and obtain prescriptions for their treatment under all circumstances—when he shall be able to buy guano and superphosphate, and poudrette—when his whole farm shall be thorough-drained, to the depth of four, and subsoiled to the depth of two feet—when his pastures shall be populated by Morgans, and Short-horns, and South-downs—when his ham and eggs shall be furnished by full blooded Berkshires and Shanghais. He has his soils analysed; and they are found to contain no phosphoric-acid, notwithstanding they produce corn and oats; he applies $50 worth of superphosphate and an equal quantity of guano, and the increase of his crops is worth but $75. His imported stock are half-bred, and die at that; his Shanghais don't lay, and he becomes a victim to 'misfortune.'

Our other friend, is a very *respectable* man; he is thought to be very sound, although he never had a dozen thoughts of his own in all his life. Devoid of imagination, his mind never goes out on foraging excursions, but only reasons on what falls within its way. He is a man of strong prejudices, and one of the corner stones of conservatism. He has immense muscles, which love to work, and a dull nerve which centers more in his stomach than in his brain. He is the type of so-called practical men; and as he occurs in every school district, he does not need further description.

The first is like the dragon-fly. He has a vast preponderance of wings. He is constantly on some adventurous flight. He goes whizzing hither and yon, through the atmosphere of speculation. He is wide awake. He flies with the wind, and wonders at his speed. He is intoxicated with the slightest stimulus, and without excitement is miserable. He soars awhile gloriously, but his wings are gauze, and in some thunderstorm of reality he falls to the earth, his pinions wet and dislocated. He loves theory, but theorizes wrongly. He chiefly fails because he cannot count the cost of a project—because he lacks business capacity!

The other character is, at best, a flying squirrel. He carries too much ballast for his sail. He makes a desperate spring with all legs spread, and calls it a flight. His sphere of life and ambition is very circumscribed. He dwells in the ancestral homestead and has spotted the beeches which yield the best mast, and knows where ground-nuts are most abundant. He despises theory without knowing that he theorizes. He prides himself on his practice, and never dreams that it might be better.

These characters stand at the opposite extremities of the chain, along which all farmers are strung. The one does not represent theory fairly, nor the other practice. They both have practice and theory, for without the former, they could not be farmers, and without the latter they could not be men. But the two elements are mixed in wrong proportions. The golden mean is where we must look for an agricultural exemplar. The best theorist is the most practical man, and the best practical man is he who most correctly and largely theorizes—*other things being equal.*

There is extravagant, unfounded, or one-sided theory; there is practice that is irrational and disadvantageous; there is also theory founded on natural laws, which is just, and deserves all respect; and practice which accords with sound theory, and which is necessarily to the highest degree advantageous.

It behoves the farmer to look after his theories, his doctrines; in so far as they are carefully formed, based on truth, comprehensive, and, to sum up all in one word, sound, in so far will his practice be correct and profitable.

If the doctrines, theories, or ideas, held by a community, relating to farming matters, be made correct, the practice will immediately conform thereto, for it is the mind that leads the body.

If, as I have attempted to show, there is no practice without theory—that even the most old-fogy farmer, has some doctrines, and some thoughts, and that the more extensively and accurately the farmer thinks—or in other words the more correct his doctrines and perfect his theory,—the more successful he must be in cultivating the soil. Then surely theoretical agriculture is by no means to be despised.

The word theory is used with considerable latitude, and may be properly applied to two things, which, in most respects, are perfect antipodes. A good sound theory, is immutable truth; it is a systematic exposition of the principles of the process or phenomena to which it refers; it is the result of experience, and has been attained by long and patient study and investigation. It is adopted by large-minded men as the basis of their practice. There can be but one good theory of any operation or art. Of bad theories, there may be a legion. They may be bad, because imperfect, though correct in many points. They may be utter nonsense, sheer invention,—may be proposed by men incapable of continued and connected thought, and bear no evidence of being legitimately descended from practice, or confirmed by experiment or experience.

What agriculture wants is sound theory. Its system of doctrine should contain all those principles which are satisfactorily *proved to be true*, and should reject all such as are demonstrated to be false.

Where is the source of good theory? Theory is the result of reflection, and of the study of facts and phenomena. To make a theory, are wanted, 1st, facts or knowledge; and 2d, mind, which revolves these facts and discovers their relations and causes. The more numerous the facts, and the more powerful and numerous the minds that reason on them, the more rapidly and perfectly will the theory be developed.

Facts must be *genuine* It is not sufficient that they seem to be facts. Every one knows that thousands of statements are received as facts by one class of people, and rejected as delusions by another. It is not difficult at this day to find men who are perfectly convinced that the earth does not turn round once in 24 hours, or in any time longer or shorter; and the fact that the water in Dea. Jones' mill pond has not spilled out long ago, is to them an argument of the strongest kind. He who will be able to judge of the authenticity of statements,—to decide whether they be facts or not,—must seek to know as many facts as possible. Facts are related to each other, or agree together in certain points—these relations and agreements, are means of deciding in how far opinions are correct, or presumed facts genuine. A subject of which we are entirely ignorant, is like a dark chamber. Every fact learned with regard to it, is a light set burning therein. The more facts the more light. A bit of looking-glass might at first be mistaken for a light, but by and bye, as the room becomes better illuminated by the genuine flames, there is light enough to see that it is a looking-glass, and only reflects, does not emit radiance.

The mind that discriminates between facts and false statements, and spins the former into threads of principles, and weaves these into the web of theory, must be *cultivated*, must be trained to its work.

There is one word which includes the whole business of making sound theory, the finding out new facts, examining the pretensions of old ones, arranging them, and developing theory in the greatest possible perfection. This word is one, here extravagantly extolled, there intensely despised: it is the word SCIENCE. There is a mind trained by years of study and thought to fitness for being the instrument for developing theory, and making it useful to mankind. This mind is that of the Scientific Man.

What is shallow or false, does not belong to science. The mind that is narrow, illogical, visionary or prejudiced, is not that of the scientific man.

Genuine Facts are of slow accumulation, and sound Theory is of still slower growth. Men have breathed through a space of almost 60 centuries, and only within the last hundred years, has it been possible to lay the foundation of a theory of respiration that promises to be endurable. The same is true of agriculture. We have just begun. Human progress has just reached the point at which it is possible to begin this work. It is but yesterday that the means and methods were discovered, by which we may hope to erect the pyramids of agricultural science. They will cover immense ground. The masons who know how to build in their walls, are few, and they often blunder. But the work goes on, and every man may in some way hasten its consummation. Encouragement must not be withdrawn, because flaws appear, or bad materials are sometimes used. To err is human. Encouragement will help, mend and rectify mistakes.

A few words on Practice. Practice is, like theory, good or bad. Good practice may be in part accidental, and independent of good theory; but good theory, if it become active, must work itself out in good practice. Bad practice is the result of erroneous, or imperfect (want of) theory. Bad theory can hardly fail to produce disadvantageous practice.

Practice and theory ought to go together. They ought to be inseparably associated in the mind of the farmer. He should boast of his strong muscles for practice, and of his well-stored and cultivated mind for theory. He should be on the alert for new items of good theory, wherewith to improve his practice, and for new practical methods whereby to test and correct his theories. He should accept no theory as genuine and established, unless practice gives it the right hand of fellowship, nor be satisfied with any practice without finding a sanction for it in theory.

Rational Agriculture is the result of such a union. Theory is the produce of mind. Education, adapted for farmers, is the means of fertilizing the soil in which this goodly growth shall flourish.

Facts are the materials to theory. They come from practice. Either they may be found by observation in ordinary practice, or more abundantly by investigation in experimental practice.

Experimental investigation is the great means of improving agriculture. By its aid, Theory and Practice will be alike harmoniously developed. No successful course of investigations can be planned, without some theoretical guide, nor carried out without well determined facts.

Let the farmer ask himself—Do I know what is the true theory of my profession? If not, how am I sure that I follow the best practice?

It may be urged—does not the best practice often conflict with theory? It may *apparently* disagree with true theory—or *actually* be opposed to false or imperfect theory. In the first case, practice is at fault; it is not correctly applied, or some unnoticed circumstances stand in the way of its success. In the second case, the imperfect theory is indeed to be rejected, but only until it can be replaced by one more perfect; but in neither case must we lose our confidence either in theory or practice.

In particulars, practice is in advance of theory; it accomplishes much that theory cannot satisfactorily explain; but, in general, theory is ahead of practice; it teaches what practice neglects to perform.

It is a common idea that many things are good in theory, which are impossible in practice. This notion is perhaps derived from the fact that many machines which work admirably in the model, fail when developed on the large scale. It is a fact that a purely *scientific* theory may be *industrially* inapplicable, and for the obvious reason that there is one element which in science is of no account, but which in industry is of the highest moment, viz., *cost*. A scientific truth has no more scientific value, because it costs thousands of dollars and centuries of toil, nor is it of less importance because some lucky accident revealed it. Its scientific value consists in the number and importance of its scientific applications. These applications are purely intellectual, and involve no cost, for mind knows none of the physical laws of gravitation, friction, nutrition, waste, &c., &c. But the industrial value of a truth, depends very much on what it costs, for an industrial or practical application is of no value when the expense of making it equals the return it yields.

To prevent confusion, and enable our language to convey the idea of cost, included or excluded, I propose to the Agricultural press, the constant use of the term Agricultural Science, to signify the scientific theory—the abstract doctrines on which agriculture is based, independent of profit or economy; and Scientific Agriculture, to denote the practical theory, the applied doctrines of agriculture, founded on natural laws, taken in connection with economical considerations. The former can be cultivated in the study and laboratory; the latter must be learned in the field, and sustain the ordeal of practice. The former is the intangible offspring of mind; the latter is the mental brood made incarnate. The one is satisfaction to the philosophical intellect; the other is profit to the practical purse.

Agriculture will flourish from that day, when practical men shall be philosophical enough to appreciate the philosopher's thoughts; and philosophers practical enough to calculate the farmer's profits. *Munich, March*, 1855.

Raising Chickens, Gapes, &c.

It is now a good time to make arrangements for raising chickens. The first step to be taken is, to exchange cocks with one of your neighbors. Then be careful that your hens do not commence setting too early.

Chickens should not come out until the earth is sufficiently warmed to produce slugs, bugs, and worms, to furnish them a moderate supply. The first food given to them, should be boiled egg chopped fine; then follow up with milk curd, it being similar to white of egg, boiled. After a few days, wheat screenings, cracked corn *dry*, or buckwheat, may be added to their diet, alternating with curd. Keep them in a warm, dry place, with a shallow dish of pure water near. Feed them often, and as they get strength mix whole corn with their other food, increasing the proportion as they take to it, and when they can fill their crops with corn you may let the hen have the liberty of the pastures, keeping up the supply of grain at regular intervals.

The above rules, closely adhered to, will *prevent* gapes, nine times out of ten, at all seasons. And the reverse will induce gapes, just as surely.

It has often been asked whether gapes could be cured, and I would answer, yes! There are different methods of curing chickens of the gapes. All agree that worms in the wind-pipe cause irritation, and the chicken gapes and flirts its head to get rid of them; the more it flirts and gapes the weaker it grows, and the more the worms increase and thrive, until at last, too weak to take its food, it dies.

Some remove the worms by inserting a feather, and twisting it around a few times, draw them forth. Others use tobacco smoke, almost suffocating the chicken, and, they say, killing the worms. But the best and most efficient cure is one practiced by an elderly lady of great experience in chicken raising. She usually follows the rules first laid down in this article, but occasionally a few of the weaker ones are attacked with this difficulty. They are caught, and if too weak to feed from the dish, are crammed with whole corn, one grain at a time, and out of twelve or fourteen cases in a season, not one is lost. I was induced to try the plan, and occasions being rather more frequent than agreeable, I selected the most desperate, the subject having made numerous ineffectual attempts at picking up its food. There was no difficulty in getting the corn in his mouth, as it was constantly open. It was a slow business, but resulted so favorably that it was repeated three times in two days and saved his life.

My unexpected success induced a thorough examination of the subject, and among the "why's and wherefore's," came up the question of origin. What produced the worm? Was it that peculiar louse of which we hear and read, produced *with* the chicken, and having its home near the nose, propagating its kind by depositing its eggs within the nostril of the chick? Was it the young of the common hen louse? Was it the egg of some insect picked up by the chick at a certain season of the year, and finding its way to the wind-pipe, hatched there?

Did not that mystery which surrounds the origin of the fluke in the liver of the sheep, and worms in the intestines of children, surround this also?

Now I do not believe that "something" is produced from "nothing," any more than that "chess" is from "wheat," or apple trees from quince seed. But what has research proved as to the origin of intestinal worms, and those that find a home in the liver of the sheep, or wind-pipe of the chicken?

We find by experiment, that a good and sufficient supply of nourishing food enables the chicken to keep off, or where no constitutional difficulty arises, to rally and overcome the disease. But when the system becomes enfeebled from any cause whatever, then this *one* difficulty, or disease of gapes sets in. No pepper corns need be thrust down the throat—no turpentine mixed with their food. No corrosive sublimate dropped on their heads, nor oil of tansey put in their food, nor feathers plunged down into their lungs, but one of nature's own remedies furnishes a cure. Food, food—good wholesome food, and a plenty of it. C.

Fruit in Oregon.—A subscriber on the Pacific, informs us that it is estimated that the fruit crop of Oregon last year sold for $200.000. He says that one grower whose oldest trees were brought across the Plains in a wagon, imbedded in soil, about ten years since, and then no larger than pipe stems, sold his crop in San Francisco, for the comfortable sum of $20.000.

Agricultural Statistics of Scotland.

In the COUNTRY GENTLEMAN of April 19th, we gave a statement of the average of the wheat crop of Scotland for the last year, ranging from 28 to 36 bushels per acre in the best districts, and from 21½ to 28 in the worst districts. This information, we doubt not, will be of some interest to a considerable number of your readers, and this interest would be increased if the averages of the wheat crops in different counties or districts in this and other wheat-growing states could be ascertained and compared with the above. We hope some approximation will be made to such an average and comparison, by friends furnishing estimates for their several vicinities, as invited to do, in the No. referred to.

If the statistics of the *wheat* crop of Scotland are likely to interest numbers of the readers of this journal, it has occurred to us that it might be equally interesting to them to learn the averages of some of the other crops of that well-cultivated country. We have accordingly collected and condensed from the "Returns" made to Parliament, information as to the principal crops, and herewith submit it. It would add to the interest of these statistical facts, if the average crops of this country could be ascertained or approximately estimated, that the averages might be compared.

Barley.—The average produce of barley in one county is 46 bushels per acre, and in the best district of that county as high as 54 bushels. The lowest average produce of any one county is 29¾ bushels.

Oats.—In the acreable produce of oats, the same county which stood highest in barley, (Haddington,) stands highest in this also, having an average of 48 bushels and 2 pecks. In two districts of this county the produce is 60 bushels, 1 peck. The lowest average produce of any county is 31 bushels, 3 pecks.

Beans.—The highest average produce of any county is 34 bushels and 3 pecks; and the lowest 16 bushels.

Turnips.—The average weight per acre for the whole of Scotland is 14 tons, 13 cwt.; the highest produce in any one county being 22 tons, 15 cwt., and the lowest 10 tons, 10 cwt. As no distinction was kept between the Swedish and other varieties, the above weights are the average of the whole. Last year's crop of turnips in Scotland, was smaller than usual, and has been estimated at fully 2 tons under average.

Potatoes.—Average acreable produce for the whole country, 3 tons, 13 cwts. The largest produce per acre in any one county was 5 tons, and 10 cwts. As however, the distinction between sound and diseased tubers was not made in some districts, the above must be held as above the average of sound tubers.

Mangold Wurzel.—This is a comparatively new crop in Scotland. The weight of roots is largest in one district of Fife, being 23 tons, 14 cwts. In no other county or district does the average weight of this root come up to the average, as grown in England.

Carrots.—The largest weight per acre of any one county is 12 tons.

Cabbage.—There are more acres under cabbage than under carrots in Scotland, notwithstanding that the cultivation of this plant for stock is only recent. It is thought that its cultivation is extending, and will continue to extend rapidly, as the value of the plant becomes more known. The largest produce of any one county was 31 tons, 15 cwst.

Turnip Seed.—Large quantities of this are grown in Scotland for home, English and American consumption. The average produce of the Swedish variety may be taken at 22 bushels, and of yellow and whites at 14 bushels.

The area under cultivation in Scotland is generally known to bear but a small proportion to the extent under mountain pasture; but it will surprise many to be informed that only about one-tenth of the entire area of Scotland is under cultivated crops.

Draining and manuring have increased the productiveness of the soil sufficiently to warrant farther outlays.

Culture of the Potato.

(*Concluded from page* 146.)

4. TIME AND METHOD OF CULTIVATION.—After the ground has been plowed, and has become sufficiently dry, let it be dragged over once, only just enough to level the comb of the furrow slice. Then take a marker and set out the hills four feet apart, center and center. Plant two sets, 9 inches apart, in each hill, and place them in the same direction as the dead furrows. This will allow the cultivator to go lengthwise of the lands, and may cut within 3 inches of the sets. It is not wisdom to drop the sets on a heap in a little hole for the purpose of letting the cultivator go both ways. Plant the sets on the top of the ground, scatter on them one handful of air-slacked lime, and cover them up with two inches of soil. Many farmers will condemn this method, for, say they, if a dry season come, your potatoes will be very small. But it must be remembered that these dry seasons come very seldom, whereas ordinary wet seasons are what we have to guard against in attempting to grow sound potatoes. Early planting, to a certain extent, also disarms this objection. As soon as the rows of the young plants can be discerned by their leaves, let the cultivator be put through the rows, taking care to gauge the teeth so that they shall cut as near as possible to the sets without actually upturning them. The more care taken in marking out truly, the easier and more complete will the cultivator work. The advantages of the spring steel-toothed cultivator over the plow and hoe are known to every one who has used both. If the season be forward and growing, let the cultivator be put through the rows again in about a week's time after the first cultivation. The object in cultivating is to keep the soil light, open and lively, so that rain water can percolate freely, and the sun have a proper effect in warming up the soil, so that when you hill up, the new plants shall be suppplied with a covering of soil in the very best condition, for supplying and nourishing all the elements of re-production.

As soon as you perceive that the tops are almost large enough to drop, put the cultivator through once more twice in a row, and let the teeth cut down as low as 6 inches, and then with the hoe, let the hills be formed of a proper shape, not high and conical, but flat and shallow, and as large superficially as possible, taking care to have all the channels betwixt hills open, so that rain water can have a free passage to the dead furrows. After making "grips," or small drains, in low flat places, with which our country abounds, the farmer has done all that is possible for a healthy crop of potatoes. The result will now depend upon the season. In a very wet season he will have to dig a few rotten potatoes; in a moderately wet season his crop will be certain and the tubers large; in a dry season they will be small but all sound.

5. THE TIME OF DIGGING AND METHOD OF PRESERVING DURING WINTER.—The best time for digging potatoes is just before the heavy fall rains, say the last of September or beginning of October. I have preserved potatoes in "graves" during winter, by putting over them two alternate coats of straw and earth and this is the only method that can be pursued if cellar room be wanting. Whether they be buried up in "graves" or put into the cellar, be sure to sprinkle a handful of air-slacked lime over each bushel-basket of potatoes. All the good done by the lime, in my estimation, is its effect upon the mould or fungus which adheres to the runners and the eyes of the tubers. Like the fumes of sulphur, it will destroy the fungi, but it will not alter the constitution of the potato; careful cultivation must do that.

In the spring, as soon as frost will permit, potatoes ought to be taken out of the cellar and spread over the barn floor in a layer not more than 9 inches thick; this will prevent any injurious sprouting before planting time, and although those potatoes which are intended for early summer use may wilt a little, still that is better than letting them remain in the cellar, a tangled mass of struggling vegetation.

I may as well state that I never sell any wood ashes, but sow them on my potato ground and garden. Soil for growing potatoes cannot be too rich in potash, as may be inferred from Boussingault's analysis of the ash of the potato and the potato top:

	Ash of Potatoes.	*Ash of Potato Tops.*
Carbonic acid,	13.4	—Carbonic acid, 11.0
Sulphuric acid,	7.1	2.2
Phosphoric do.,	11.3	10.8
Chlorine,	2.7	1.6
Lime,	1.8	2.3
Magnesia,	5.4	1.8
Potash,	51.5	44.5
Soda,	(traces.)	(traces.)
Silica,	5.6	13.0
Oxide of iron, &c,	0.5	5.2
Charcoal and loss,	0.7	7.6
	100.0	100.0

Every good crop of potatoes abstracts from the soil, of potash, per acre of tubers, about 58 lbs.; of potash, per acre of tops, about 135 lbs.! I would advise farmers to sow the ashes and not to drop them in or on the hill.

I have now done:—if these observations and deductions will induce a few good farmers to follow the course of cultivation laid down my labor will be rewarded. In this case example alone willl work upon the masses, for they are, at present, too eagerly bent on finding out some quack remedy for a disease of which they know nothing. JOHN R. CHAPMAN. *Oneida Lake, Madison Co, N. Y.*

Culture of Carrots.

For the last six years I have raised more or less carrots for feeding to my stock in winter and early spring. When I first planted them in the field, some of my old neighbors shook their heads, and gravely told me that my time and labor would be thrown away. As the season proved wet and favorable to the growth of weeds, I found it difficult to keep the "wee-bits" of carrots sufficiently ahead to give them a fair chance, and began to think my venerable friends correct in their opinions. Imagine my surprise at finding my crop yielding at the rate of 600 bushels per acre and not half attended to at that.

Some time after the above trial, I saw, in *The Cultivator*, an account of their being raised on inverted green sward, with much less trouble and expense. Being a little inclined to *labor-saving*, I tried the plan; not, however, until last summer. The sod was plowed on the 10th of May, and planted about the 20th. Dry weather having commenced, the seed came up tardily; a few light dashes finally wet the earth sufficiently to give it a fair start. The patch had no manure, was not hoed, cultivated or plowed after planting. What few weeds came in were pulled out, one man cleaning half an acre in a day. So that the care and labor was not expensive; nor was the yield extravagant; 400 bushels per acre. Small as the number of bushels may appear, it is twice as great as an acre of potatoes. The whole expense, interest on land included, was only $16, or 4 cts. per bushel.

I have plowed deep and mixed large quantities of manure with the soil; trenched and manured, and ridged over manured trenches; but have never raised carrots before, for less than 6 cents per bushel; sometimes they have cost me 10 cents per bushel.

The green sward soil was limestone loam. The situation was in the middle of a pasture field where the sod was heaviest. The practice of thinning to 8 inches, single stands, is one that I do not regard as at all favorable to the quantity or quality of the crop. Four to six good sound roots may be grown in that distance if the seed is spread in the drill as it should be. If they are allowed to grow too large, they become pithy. I use the orange variety more than any other; it is more likely to yield fair crops in a succession of years. At this date we are feeding milch cows and working teams upon them, with marked benefit. GEO. W. COFFIN. *Amenia.*

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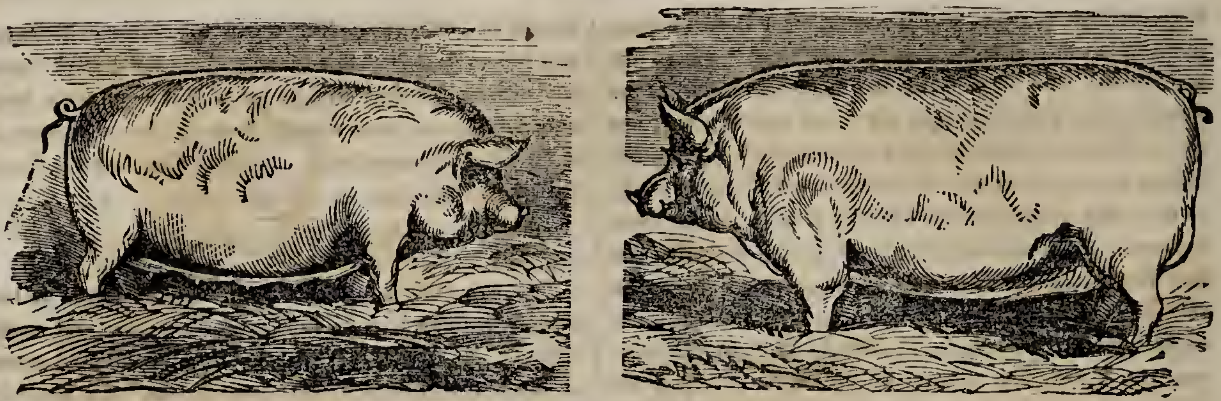
ASHES ON POTATOES.—A correspondent of the *Boston Cultivator*, has experimented with ashes on potatoes for three years. The ashes diminished rather than increased the yield, and the potatoes where ashes were used were blistered, each year, so as to be unsaleable.



Suffolk Swine.

The above, cuts show the Suffolk boar "Moses Wheeler,"and a Suffolk sow which as one of a pen of three, received the first prize of the Royal Agricultural Society of England in the year 1853. They were imported and are now owned by Messrs. Josiah & Isaac Stickney of this city. They are both very superior animals. The best judges pronounce the boar nearly the ultimatum of perfection in his species. He is large enough to weigh, with fattening, 450 lbs., dressed ; he has great strength of constitution, remarkable symmetry and justness of proportion, with uncommon tendency to fatten. The figures, though generally faithful, fail to do the originals justice, in some particulars. The boar, for instance, is not represented quite as deep through the shoulders as he really is, and the sow's ears are drawn too large. It may be mentioned that these swine are considerably more coated than some Suffolks ; they have fine, wavy bristles over the whole body.—*Boston Cult.*

Shape and Construction of Churns.

MESSRS. EDITORS —I have kept a dairy for many years, and taken *The Cultivator* as long, and my wife can make as good butter as the next woman, and still thinks she can learn more. We have used many patent churns, and many years ago became satisfied by actual and careful tests, that no square or box-shaped churn could be used without great loss, both in quantity and quality of butter. Cream should be churned even, and all come at or nearly the same instant. Cream poked down from the sides and lid of the churn, is worse than *lost*, because a large part goes to enrich the butter-milk, and another part is about half churned, and is mixed in the butter, and from this half-churned butter, the milk cannot be extracted, and it soon spoils the butter. I am satisfied that uneven churning, is one of the great causes of bad butter. Some years ago I became satisfied the cylinder churn would make the most butter, and I learned this fact by careful and accurate tests; but still there was a loss and uneven churning, by cream winding around the arbor and coating on the cylinder. About one year ago, I noticed a description of Fyler's Patent Butter Working Churn, made by Hall and Holmes, Brattleboro, Vt., and in the notice I saw the proprietors had my views of butter making. I immediately sent and purchased one ; and in this churn I found all these evils removed. The churn is a cylinder ; the dasher fills the churn well, and plays astride of breakers that cause a constant reaction, and no cream can coat on any part of it. I find, when the butter comes, it gathers at once. I also find it to make about ten per cent. more butter than the thermometer churn, and in much less time ; and I have never seen any thing that would work the butter and mix the salt so quick or so well as this churn. It is very simple and easily adjusted, and on the whole it is the only churn I ever saw that was as good as recommended. As I find, after one year's trial of this churn, all I think we ought to expect, I most cheerfully recommend it to my brother farmer. J. H. *Mount Holly, Vt.*

We know nothing of the above churn or its patentee or manufacturers ; but presuming our correspondent to have no interest in it, we give his letter in full, though the latter part of it would appear more appropriate in our advertising pages.

Cure for Hoof or Foot Ail.

MR. TUCKER—I see in the *Country Gentleman* of April 19th, an inquiry for a remedy or cure of the Hoof or Foot Ail in Cattle. I have used for fifteen years, more or less every year, the following, on sheep and cattle, and never failed of a cure in every case by making two applications in the course of two or three days. To six quarts alcohol, add 1 lb. verdigris, 1 lb. blue vitriol, 1 lb. alum, 1 lb. saltpeter and lb. copperas. Dissolve the above in the alcohol, and then add half a pint vinegar and half a pint spirits turpentine. Saturate the parts affected thoroughly with a swab, and it has answered my wishes.

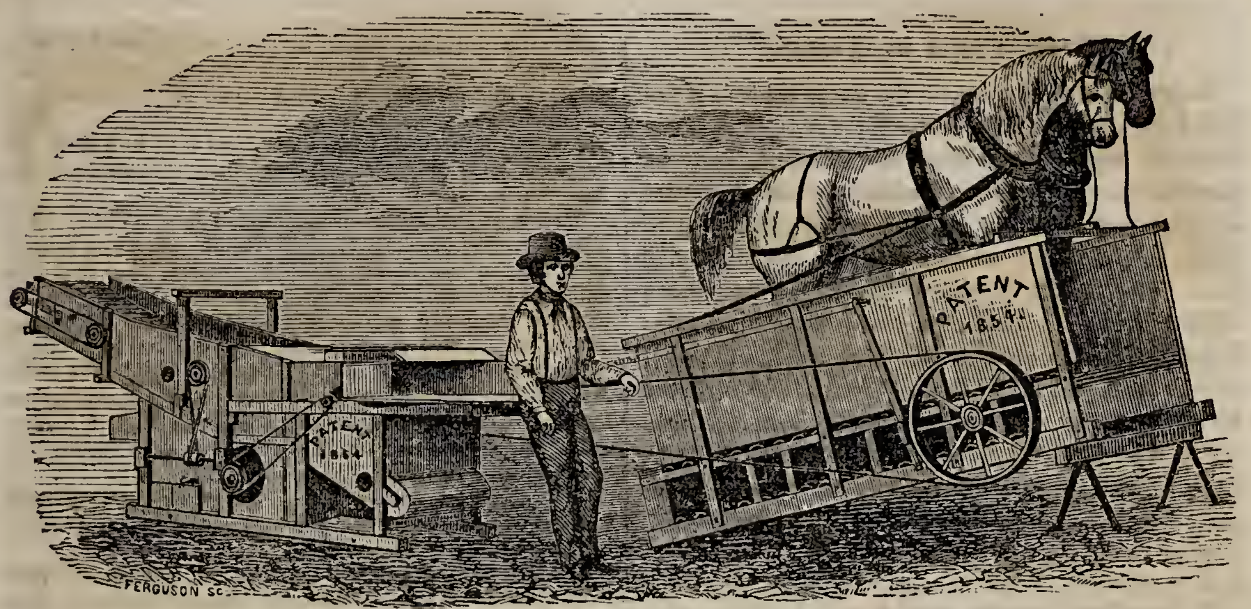
The above will very effectually destroy all maggots that may be found in ulcerated sores. LEWIS BAILEY. *Mavay Farm, Fairfax Co., Va.*

Choked Cattle and Wens.

MR. TUCKER—I read the following recipes in *The Cultivator*, some ten or twelve years since. I have several times tested them, and knowing that they can be relied on, I would suggest that you would do well to republish them.

TO RELIEVE CHOKED CATTLE.—Mix a spoonful of gun powder with enough hog's lard to form a ball the size of a hen's egg—open the animal's mouth, and after pulling out the tongue lightly, chuck the ball of lard and powder into the throat, let go the tongue, and the work is done. I have tried this in two instances, and it produced immediate relief.

TO REMOVE WENS ON CATTLE.—Mix fine salt and tar, and rub the same on the wen. I have seen very bad ones cured in this way, in six weeks. W. S. P.



G. Westinghouse & Co.'s Endless Chain Horse Power,

AND COMBINED THRESHER AND CLEANER.

The horse power in its general appearance is nearly the same as that of several other kinds in use, yet it is quite different from others in the manner of putting on the gearing, for the purpose of changing the band wheel from one side to the other, or of obtaining different motions, the fastenings being so placed that the wheels are not liable to get loose while being used; and the chain is so constructed that it will keep uniformly tight in the different positions of the joints in turning the ends on the reels or circles, the boxes for the bearings to the shafts are of novel construction, having a wick feeder that carries the oil to the bearings on the shafts, so as to keep them uniformly oiled without waste of oil.

The combined thresher and cleaner is somewhat different from others in use. The separator that separates the grain from the straw, is a revolving sieve or screen, made into sections of wove wire, and fastened together with leather belts, and has a cam inside which causes it to vibrate as it revolves on the axles, causing the grain to be separated from the straw. The separator in its revolutions draws the grain to the fan mill where it is cleaned. The thresher is overshot, and has a new arrangement of the feeding hopper, so as to discharge the grain and dust through the machine. It can be driven from either side of the machine, the pulley being easily changed from side to side. G. Westinghouse & Co.

Inquiries about Mules.

Messrs. Editors—Can you or any of your correspondents, give me any information with regard to Mules, and their adaptation to farm work. I believe it is conceded that they are the most profitable team; if so, why are they not more used? Yankees are not slow to tell in business, what pays best. Is it an antipathy without foundation, or have they not some radical defect? Is it his appearance or his habits? Can he be worked with horses—can they be pastured with horses—or are they unruly? When left idle for some time, as farm horses generally are, are they not more vicious and stubborn?

I read an article in the *Rural New-Yorker*, that conveyed the impression that they could not be pastured with horses, with any safety to the horse—that an ordinary fence would not confine them, and that they should be worked 6 days out of 7, and the 7th confined to the stall. An answer to the above will oblige Myndersе Wynkoop. *Catskill, April* 2, 1855.

Mr. Tucker—Can you, or any of your various readers, give me any information in regard to mules. I am very anxious to learn something about them, and their suitableness for farm purposes. There is a Spanish jack, owned in this town, that was bought in New Jersey last season, at an enormous price ($1000)—said to be large, (14½ hands high,) and of good color, (dark brown.) Would it be more profitable to raise mules for the farm and market, than horses? The jack being convenient, and the price but little more than for a common horse, any information you can give on the subject would greatly oblige Many Farmers. *Amsterdam, April* 16.

We shall be greatly obliged to any of our readers who will furnish us with information in reply to the above inquiries. In the mean time we would refer our correspondents to the Cultivator for 1852, pages 144 and 370, where they will find articles on the "Advantages of Mules over Horses," and on "the Rearing of Mules for Market," in which they will find many facts which tend to confirm the opinion often expressed, that mules may be more profitably bred, either for the farm or for market, than horses.

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Devon Herd Book.—Saxton & Co., Ag. Book publishers, New-York, are about to issue an American edition of Davy's Devon Herd Book, with additions of animals in this country, by Ambrose Stevens, Esq.

Great Fraud in Guano.

Every one acquainted with the guano trade of Great Britain is aware that adulteration is carried on to an enormous extent. The laws are stringent, and the penalties in case of detection severe, yet the profits are so large and the difficulty of *proving* the fraud so great, that numbers of dishonest men are willing to brave the chances of detection. The agricultural press, when in the hands of honest, independent men, untrammeled by business connections, is the great safe-guard against these and other impositions; but, though the British agricultural journals are mostly of a high tone and character, their price prevents an extensive circulation; and, indeed, comparatively few farmers take any agricultural paper whatever. Under such circumstances, therefore, it is no wonder that fraudulent manure dealers reap a rich harvest.

We have long been convinced that there were parties in this country engaged in manufacturing various artificial fertilizers which are of little value—and we have done our part towards exposing their fraudulent practices. We were also aware that inferior guanos are often sold under an assurance that they are equal or superior to the best Peruvian, but we had no idea that there was any one in this country engaged in the *manufacture of guano.* We are sorry to say we have been deceived. Numerous as are our agricultural papers, great as are their circulation and influence, they are found insufficient to prevent unscrupulous men from *attempting* to palm off on the credulous farmers of our broad domain a comparatively worthless article, at a high price, under a *false name*, and, what is most to be regretted, it is one of the professed friends and teachers of scientific agriculture, that is engaged in this deception.

How we discovered this fraud, we are not at liberty to state. Suffice it to say, that some six weeks ago, we were informed that an article known as Mexican guano was taken to an establishment, near Newark, N. J., and there mixed with plaster, salt, sugar-house scum, Peruvian guano and quick-lime, the whole ground up together and put in bags, marked "Chilian Guano."

Following the directions of our informant, we proceeded to Newark, and there found a large heap, of about 250 tons of Mexican guano, and some 200 tons of the *manufactured article* in bags, marked "Chilian guano," as we had been informed. We also learned that a considerable quantity had already been shipped to New-York and Boston, and one gentleman said he believed a good portion of it had been sent to England.

In New-York we were offered the Chilian guano, if we would take it in quantity, at $35 per ton.

We took samples of both the Mexican and Chilian guano, and made careful duplicate analyses of them in the laboratory of Prof. Carr, of this city, chemist to the New-York State Agricultural Society. The following are the mean percentage results of the analyses.

MEXICAN GUANO.

Sand,	0.5
Organic matter,	5.0
Phosphate of lime,	26.0
Carbonate of lime,	68.0
	99.5

CHILIAN GUANO.

Water,	4.0
Sand,	2.4
Organic matter,	15.3
Phosphate of lime,	24.5
Sulphate of lime, (plaster,)	9.5
Chloride of sodium, (common salt,)	6.2
Carbonate of lime,(chalk,)	37.6
	99.5
Ammonia,	1.06

Having obtained these results, we proceeded once more to Newark, and there received the following account of the modus operandi, adopted at the factory.

The bags are first marked "Chilian Guano;" they are then moistened with water, and laid in a heap, in layers, *with a quantity of Peruvian guano between each layer.*

The sugar-house scum is pounded fine. Three barrowfuls, of "five half-bushels" each, then are mixed with six barrowfuls of Mexican guano. To this are added 1½ bushels common salt, 1 bushel of plaster, 3 bushels Peruvian guano and ½ bushel of quick lime. When the Peruvian guano and lime are added, "they make it tremendous strong." In other words, the lime sets free the ammonia of the Peruvian guano, and gives the manufactured Chilian guano a strong smell of hartshorn, which, to the unreflecting, is a sure indication of a valuable guano.

The floor, where the bags were filled, was covered with Peruvian guano, in order to make the article look as like genuine guano as possible.

What is Chilian Guano, and why is this name given to to it instead of the better known Peruvian Guano? The only genuine Peruvian guano in this country comes thro' the hands of Barreda Brothers, and has their mark upon it; so that it would not be easy to sell a spurious Peruvian guano. Chilian guano is subject to no such regulations, and the books describe it, when "fine,"—and the manufactured article is made fine by grinding—as a "*very* valuable variety, equal to that of the *very best* Peruvian." The name, therefore, has been chosen with consummate cunning.

The *Oxford (Me) Democrat* states that it has received a circular containing an analysis of "Chilian guano," made by Prof. Hayes, "Assayer to the State of Massachusetts," and which is "*Endorsed by* Prof. Mapes." This analysis represents the Chilian guano as containing 27.9 per cent. of "azotized organic matter and fixed salts of ammonia." This is a much larger quantity than the sample we analysed contained. The actual quantity of ammonia or nitrogen is not stated, and it is impossible to judge correctly of the value of the manure without it. Fermented saw-dust, or peat, may be termed "*azotized* organic matter, with fixed salts of ammonia;" and we can see no use of such phraseology except to deceive.

Seeing it stated in the *Southern Farmer* that Chilian guano was about to be tried on the Model farm of the Union Agricultural Society at Petersburg, Va., we wrote to the Superintendent, Mr. Nicol, for information in regard to it. He replied that it was obtained from Messrs. Powlett & Hardy of Petersburg, who received it from Mr. S. of Boston. The price was $40 per ton. Mr. T. S Pleasants, the guano inspector at Petersburg, informs us, that having made a chemical examination of the Chilian guano, he told Messrs. P. & H. that "it was a fraud." On this, Messrs. P. & H. wrote to Mr. S., who replied that the opinion of Mr. Pleasants "was very different from other gentlemen, mentioning the names of Dr. Hayes, and the Inspector at Richmond, Dr. Powell."

We have now presented the facts in regard to this Chilian guano manufacture, so far as we have been able to obtain them. Our readers can draw their own inferences. Even was the article itself valuable, it would be a gross deception to palm it off as genuine guano; but the article is comparatively worthless, as our analysis fully proves. Thus a ton of it contains 490 lbs. insoluble phosphate of lime, which at two cents per lb.—a high estimate—is $9.80; 124 lbs. of salt, worth say $1; 190 lbs. plaster, 50 cents, and 21 lbs ammonia at 12 cents per lb., $2.52. This is $13 82 per ton. Allowing that the non-azotized organic matter, and carbonate of lime is worth $1 18, we have fifteen dollars as the outside value of a ton of the so-called "Chilian guano." And for this the farmers are asked $40, and are told that it is better than Peruvian guano!

Since writing the above, we have received the May number of the *American Farmer*, containing the report of the Inspector of guano at Baltimore, Md. He says, " two lots, consisting of 100 bags each, were consigned from New-York and Boston, *purporting to be 'Chilian Guano,' and so marked.* An average sample of that from New-York contained ammonia 1.78 per cent and bone phosphate of lime 21.10 per cent. That from Boston contained 2 56 per cent ammonia and 21.10 phosphate of lime." This is a little more ammonia than we found, and a little less phosphate of lime. The analyses show, however, that the article is comparatively worthless, even taking the highest figures.

Silesian Sheep Sheared.

Messrs. **William Chamberlain** of Red Hook, in this state, **Geo. Campbell**, of Westminster West, Vt., and **Wm. H. Ladd** of Richmond, Ohio, have been for some time past, as most of our readers probably know, engaged in the introduction of Silesian Sheep into this country, and in breeding them for their own use for wool-growing purposes, as well as for their dissemination among our farmers. It will be remembered that Mr. **Campbell** was the first to import these sheep, having, after traveling through Spain, France and other portions of the continent, selected them as best adapted, in his estimation, to our wants. He also selected a number which were brought over by Mr. Chamberlain about a year ago, and last August a third importation arrived. These flocks have been kept at his farm in Duchess Co. during the past winter, chiefly under the care of a German who came with the second lot, and of whose ability in this particular field, their condition gives good evidence. While the Silesians, like other fine wooled sheep, have not the roundness and beauty of form, which commends the pure South Down at once to the admiration of the least experienced beholder, the beauty of their fleece, its weight as compared with the weight of the animal, and their manifest value, not only as a pure breed, but when crossed with others, combine to make them well worth the attention of American wool growers. If they are scarcely as *prepossessing* as some others, those that have known them best, have constantly become more and more convinced of their excellent quality.

Last week, the gentleman named met at Mr. Chamberlain's to be present at the shearing of a portion of the flock, and we were glad of the opportunity of witnessing such a test of their productiveness. Mr. C. has a farm of over 500 acres, a part of it swamp lands reclaimed to fertility by drainage, and all of it, judging from the hurried inspection of a visit necessarily brief, in excellent order. His farm buildings are large and commodious—far more so than is common here at the east, while they would be an astonishment and admiration to western farmers, who leave their stock mostly to the shelter of the wide heavens. But **Carl**, the Silesian, met our expressions of delight by the remark that " in his country " they would not be thought so very fine, after all; and we contented ourselves with the wish that *our* farmers would give the subject of housing their animals properly, one-half the attention which our foreign friend was in this case disposed to underrate.

The sheep are kept on the ground floor—the ewes separate from the lambs, and all trained to the best possible behaviour—to go and come at Carl's bidding, and to follow his footsteps like a favorite dog. They are numbered by ear marks—notches made by means of an instrument such as shoe-makers use for punching holes, except that its punch is angular, shaped like the letter V, instead of round. He can tell at a glance the number of each, opposite to which in a book kept for the purpose, is recorded every fact of interest in a " mother-lamb's " biography–the time of its birth and successive shearings, of its taking the buck, dropping its lamb, and all memoranda in regard to the fate of its offspring—and similar incidents in the case of rams. Thus he has always present accurate data from which any fact may be ascertained, and he makes a daily record of any memorable occurrence for future reference.

We have a minute of the weights of several fleeces, which may we think be taken as fair examples of the number shorn, and as affording ample grounds for a general estimate of the average productiveness of the breed. It is proper to say of them, that they were unwashed, but generally very clear of dirt; that the ewes had suckled their lambs through the winter, and a portion of them had had to undergo the rigor of the voyage to this country, and that the age of the fleeces was in most cases less than a year. They were pretty evenly shorn; though our authority, Carl, insists that the "German girls" would leave them a little smoother, taking the wool off "so, as by one cut." The felt-like appearance and feel of the shorn lamb, attested the fineness and thickness of the wool. But to begin with our notes:

Ewe No. 132. Fleece of 11 months' growth, weighed 8 lbs 3 oz. Carcass, (after shearing,) 70 lbs. Her lamb dropped 20th Dec.—suckled through the winter — present weight 51 lbs

Ewe, No. 100. Two years old—fleece of 11 months' growth—weighed 7 lbs. 8 oz. Carcass 73 lbs Her first lamb, now 4½ months old, weighs 54 lbs.

Ewe 111. Same age and fleece of same growth as No. 100—weight of fleece 8 lbs.—of carcass 78 lbs. Lamb dropped March 2, now weighs 25 lbs.

Ewe, No. 156. A very fine specimen—3 years old—fleece of 11 months' growth weighed 7 lbs. 10 oz. Her lamb, dropped Dec. 15—weight 45 lbs.

Ewe, No. 213. Three years old—weight of fleece (11 months' growth,) 9 lbs.—of carcass 90 lbs. Her lamb, dropped Dec. 17, she suckled until April 2, when it died.

Ewe, No. 326. Fleece 9 lbs. 5 oz. Carcass 84 lbs. Lamb one week old.

One fleece from a Ewe of last August's importation, being only of 10 months' growth, which is to be considered, as well as the trying voyage the animal underwent, and her suckling her lamb, weighed 7 lbs 3 oz.

One Buck, No. 13. Imported by Mr Campbell in 1851—five years old. His wool of 13 months' growth—weight 14¾ lbs. (It should be remarked that his wool was unusually free from dirt, and was therefore estimated before shearing at less than its actual weight by most of the party; also that he had been put to his best use during and since last fall, having served upwards of 100 ewes.) Weight of carcass 125 lbs., and in healthy condition, though not fat.

In these statements, there are, as we have hinted several drawbacks on the weight of the fleeces to be taken into consideration. As proportioned to the weight of the animal, and in the case of the ewes, to the size of the lambs they have raised, they can but strike the reader as well worthy of note. We have stated all the facts that seemed to have a bearing on the case, and will leave our readers to decide on its merits for themselves. We presume that either of the gentlemen whose addresses are at the head of this article will be happy to give any further information that may be desired. Their flocks, now at Mr Chamberlain's, number nearly two hundred head of the Silesian breed, and about one hundred French Merinos. The lambs, of which there were in one pen about 80, of from 4 days old to as many months, presented as fine and happy a sight as we have perhaps, ever seen. There is much to commend in the way in which they have been raised, each one of this large number having to all appearances had the care that a man with a small herd of cattle might expend upon every particular individual; and had we more space now at command there are many particulars that might be advantageously mentioned.

An Experiment in Soiling Cattle.

Luther Tucker, Esq.—I very much regret that, in reply to your inquiries, relative to my experiments in soiling stock, I am not able to give you a more detailed and satisfactory statement, yet the little experience which I thus far have, has been so satisfactory to myself that it is most cheerfully communicated, in the hope that others may be induced to give it a trial, for I am aware that any particular process in farming, to be generally valuable, must stand the test of repeated trials, made under the various circumstances which modify the results in different regions.

During the summer of 1854, my stock on my home farm, consisted of a span of horses, one yoke of oxen, a three year old short horn bull, fifteen cows and twelve calves.

As I wished to break up the greater part of my old pasture, and could not well appropriate other lands to that pupose, I resolved to make up the deficiency by feeding in the stable all except what they could graze upon a six acre lot of old pasture.

For this purpose I sowed four acres of corn in drills, three bushels to the acre; part of it as early as the seed would come, and all before the first of June. The land was in good condition, having been plowed deep and well manured; and if cured, the yield would probably have been from four to six tons to the acre. In addition to this, before the corn was fit to cut, a little less than two acres of clover was fed green to the stock, making in all say twelve acres of land, upon which the above stock was well summered, and in fact were in much better order in the fall than most herds in this region, in consequence of the short feed occasioned by the severe drouth.

The teams and bull were constantly stabled, and received dry hay till the first week in June, when they were put upon green cut clover; but to prevent their scouring, as well as the cows, when first put upon it, a small portion of dry hay was mixed with the green clover for a few days, when it was gradually abandoned.

During the flush of feed in May and June, the cows grazed a large portion of their food from the six acres of pasture, the deficiency being made up in dry hay till the clover came.

Perhaps it required two weeks longer keep in the spring on hay, than if the cows had been turned upon abundant pasture. They were stabled nights, being put up before milking, and not turned out till after milking the next morning, and received evening and morning as much clover as they would eat, till about the 10th of August, when the first sowed corn had got its growth, and could be cut without loss. Upon this they were fed till near the first of December, when the corn raised on the four acres was gone. That portion of it standing when frost came, was cut and cured in small bundles set up in shocks, upon which the cattle fed nearly as well as when green.

The corn sowed was the common yellow, but this spring I am going to sow sweet corn, which I am sure will produce a heavier growth, and much better quality.

The cows thus fed, gave a larger quantity of milk than they have ever done upon pasture alone, and did not shrink it, in the fall, from the drouth as if pastured. This was very favorable to my calves, with my mode of rearing them, which is upon skimmed milk and buttermilk with a little meal in it, which they receive as long as the cows give milk in the winter; for the amount of milk for them did not diminish as it would, had the cows been pastured alone, and shrunk of their milk in the latter part of summer.

My cows are of the largest class, being thorough bred and grade short horns, none of them less than fifteen-sixteenths Durham, and would require as much feed as any class of cows.

The only drawback is the labor required to feed and care for the cows. This will amount to about two hours extra labor per day, say $1.00 a week, or $30.00 for seven months. But this is much more than compensated in the greater amount and better quality of the manure made and saved in this way, for cows' manure, dropped about a pasture in summer, spoils nearly as much grass the first year, unless it is taken up and carted off, as it augments the growth the next year.

In order not to mislead any one, it should be added that to feed so many cattle from so small an amount of land, it must be in good condition, rich enough to yield at least three tons of hay or a hundred bushels of corn to the acre. Respectfully yours, Alpheus Morse. *Eaton*, *April* 29, 1855.

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The New-York Farmers' Club.

Mr. Editor—I have lately read in the *New-York Tribune*, the proceedings of the Club of the American Institute. A great many of their sayings are very erroneous, judged by practical experience; and I have waited for some abler pen to contradict what is so grossly wrong in practice. I see that, a few days since, Solon Robinson brought up a discussion on plowing, in which he advocates that, to keep the land level, farmers ought to begin in the center of the field and gee about, plowing round and round until the whole field is plowed; and he was backed in his plans by others of the club. Now, if the men who compose the club would only discuss such topics as they understand, or else such as farmers *do not understand*—such as hydrogen, oxygen, carbon, silica and all the different kinds of phosphates—we farmers would not know how ignorant they were in the first letter of the alphabet of agriculture. Every one must know that plowing or digging is the first; and none of the gentlemen who composed that club could have been farmers at all; they may own farms, and large farms, but there could not have been any farmers amongst them, else they would certainly have put an end at once to so silly a discussion. I venture to say that there is not a young man eighteen years of age, who has plowed two years with a *farmer*, but knows how to plow land to keep it level; but land owners, that are not farmers, can no more learn young men to plow or do any other farm work perfectly, than I, without any knowledge of the trade, could learn a man to be a blacksmith, simply because I owned a blacksmith shop. But let us see what kind of a field Mr. Robinson would make, by beginning at the center, and "geeing" round until he plowed the whole field. It is 50 years this spring since I first began to hold tho plow. Suppose I had commenced at the center of the field, and "geed" round, and plowed the field 25 years out of the 50. I would ask Mr. Robinson, Professor Mapes, and all the others who compose the club of the American Institute, what would have been the appearance of the field now; how high the mound would have been in the middle, and how deep the ravines around the fence, provided I had fallowed 25 years, plowing three times each year, and each furrow ten inches wide and seven inches deep? But if this was pointed out, I think the idea would occur to them, that the plowing ought to be reversed; that is, *gee* round the ono plowing, and *haw* round the other, as any one that is a farmer would do to keep his head lands level, or the ridges on his fields.

I would advise these gentlemen to exclude from their meetings, the reporters for the public press, until they have gone to a farming school, and learned their A B C; else they will put *book* farming more and more in disrepute with practical farmers. A Westen New York Farmer.

Variable Fruits.

We have received a communication from Jefferson Valley, the length of which prevents its insertion entire, on the variable quality of the *Baldwin* and *Yellow Bellflower* apples. The writer admits the free growth and productiveness of the Baldwin tree, and the uniform fairness of the fruit, but questions the longevity of the tree, and adds, "There is no apple with which I am acquainted, that varies so often from insipid to first rate. If you have a warm, sweet, early soil, it will do to graft it, with a fair expectation of getting fruit that would be valued by a connoisseur; but if your land be cold and wet, you may have fruit and blighted expectations both at the same time. A Rhode Island Greening or Roxbury Russet would be far preferable on such a soil."

The influence of soil as here stated, may be often similar in effect, but we have seen much variation in this fruit on soils quite similar in character, but on which the trees were subjected to different influences by culture, age, seasons, and other causes, not yet fully understood.

Our correspondent we think falls into one of the errors which he attempts to point out, by judging from isolated facts. He states that the Yellow Bellflower is worthless unless planted on a *clay* soil, and states in proof that it succeeds finely on the clay soils of Newburgh and Fishkill. We could add other instances, where it has failed on light soils; yet to show that there must be some other reason than this difference merely, it may be added that the finest flavored Yellow Bellflowers that we ever tasted, and in repeated instances, grew on soils of a decidedly sandy or gravelly nature.

The American Pomological Society has recommended several fruits, as being adapted to certain localities only; but there is yet hardly enough of experience to point out precisely what localities will be likely to suit them. The facts we have just stated show that conclusions may be adopted that need revision; and our present aim should be to collect all the facts from accurate sources, which may assist in this inquiry.

The Use of Leaves.

The office and utility of leaves are becoming better understood by cultivators than formerly; yet we find a good many still adhering to the old belief that the sun's rays, directly shining on forming fruit, are what perfect it, independently of other influences.

On this subject, theory and practice have been invariably found in perfect accordance with each other. The principles of physiology teach us that the sap of a tree, when it passes in at the roots, remains nearly unchanged in its upward progress through stem and branches, until it reaches the leaves, where, being spread out in those thin organs, to light and air, it undergoes a complete change, and thus becomes suited to the formation of new wood and new fruit. Strip a rapidly growing tree of its leaves at midsummer, and from that moment the supply of new wood ceases, and it will grow no more till new leaves are formed; and if it have young fruit, the growth and maturity of the latter will cease in the same way. A few years since, a Yellow Gage plum tree lost all its foliage from leaf-blight, when the plums were not fully grown, and while yet destitute of flavor. The fruit remained stationary and unaltered, until, in a few weeks, a second crop of leaves came out. They then swelled to full size, received their crimson dots, and assumed their honied sweetness of flavor.

The object of pruning should be, therefore, to allow the leaves to grow to full size without being injured from crowding.

We find the following corroborative fact stated in a late number of the New England Farmer:

> We once knew an intelligent lady, and one who understood much about horticulture, strip her grape vines of a portion of their leaves, in order *to let in the sun and ripen* the fruit; but to her surprise, where the leaves remained as Nature had disposed them, the grapes were the earliest, and every way the best. This led her to investigate the matter, when she was delighted to learn that the leaves were not only the *protectors*, but the *caterers* of the fruit, constantly elaborating and supplying it with the pabulum it required to bring it to perfection.

Col. Ware's Cotswolds.—In the letter from Col. Ware in the Country Gentleman for March 8, and the Cultivator for April page 117, the *note* should have been given as an extract from the Report to the Maryland Agricultural Society, June 1854, *American Farmer*, page 378.

Answers to Inquiries.

MINERAL PHOSPHATE OF LIME.—*Horace Morrison*, *Peterborough*, *N. H.* There is no mineral phosphate of lime for sale in Albany. A considerable quantity of it has been obtained from the mines in Essex County, N. Y. It is reduced to a fine powder, and applied to the soil without decomposition with acid. We believe it has been used to some extent in the southern states, but with what success we are not *satisfactorily* informed. Certainly, we should expect little immediate effect from it. Could it be obtained cheap enough, it might be used to good advantage in the manufacture of superphosphate of lime; but so long as *animal charcoal* is a *cheaper* source of phosphate of lime, it will not be used by intelligent manufacturers.

LIME AS MANURE.—*T. Y. Simons*, *Henderson*, *N. C.* The best method of applying lime, is one of the many vexed questions of scientific agriculture. The English farmers have been in the habit of using a large quantity—say six tons per acre—at once; and we have heard those who have had great experience, stoutly contend, that a less quantity should never be applied to any soil that needs liming. Nevertheless, they failed to convince us, not only that a less quantity could not be advantageously used, but that it is not the better practice to apply a small dressing, say 40 bushels per acre, every four or five years, than a larger quantity at longer intervals. We will give an article on this subject in a future number. In the meantime we should like to hear the opinion of those who have had experience in the use of lime as a fertilizer.

GRASS FOR SWAMP LAND.—*C. P.*, *Cape Vincent*, *N. Y.* We do not know of any better grass for swamp land than red-top. If any of our readers do, will they please inform us?

RAPE.—*H. B. Hammon*, *Bristolville*, *Ohio*. The cultivation of rape *for seed*, is very similar to the common method of raising turnip seed. At least this is the best method, and the one generally adopted on the continent of Europe and in Great Britain. The seed is sown in rows, a foot apart, in a well prepared bed in July. In October, the plants are transplanted, and the seed is ripe the following July. How far such a plan will answer here with high labor—whether the plants will stand the cold of our northern winters, we are unable to say. We think, however, some other method must be adopted before the cultivation of rape for seed becomes at all general. Rape, like the turnip, is a biennial; but like it when sown early in the spring, in a warm climate, *it will produce seed the same year*. Turnip seed so produced is worthless, because the turnip produced from it will not bulb; but this objection does not hold good in the case of rape, and, although the seed is inferior in quantity and quality, we question whether, in this country, this will not be the cheapest method of raising it for oil-making purposes.

We should sow the seed in rows 2½ feet apart, about the first of June; thinning the plants out afterwards, about six inches apart. Thorough cultivation and constant working of the soil between the rows is desirable A drained, naturally moist soil, abounding in vegetable matter, produces the largest crop, but a loamy, upland, "wheat soil," yields the best quality of seed. Superphosphate of lime drilled with the seed gives the rape plants a vigorous growth early in the season, but a rich nitrogenous manure is needed for the perfection of the seed.

As a green food for sheep, rape is extensively cultivated in England, especially on the fens, where turnips of good *quality* cannot be raised. The land is thrown into ridges about 2 feet apart, as for turnips, and, about the middle of May, 5 lbs. of seed per acre is drilled on the ridges in conjunction with superphosphate of lime. We have seen immense crops of it so raised, which furnished sheep with a most nutritious food from August till the end of the year. Whether it will succeed in this hot climate, is a subject on which we have not sufficient information to form a decided opinion. Will those who have experience in the cultivation of rape for seed or as a green crop, give us their views.

RED TOP.—*J. T. C.*, *White Slore*, *N. Y.* For seeding down low land with red top alone, one and a half bushels of seed per acre would be none too much. EMERY BROS. of this city, sell the seed at $1.50 and $1.75 per bushel. The cheaper seed comes from Philadelphia, and is considered as good for low land as the more expensive Northern seed, which is better for dry up-lands.

SELF ACTING TAIL BOARD.—Having noticed in Stephens' Book of the Farm, an account of a "Self acting Tail-board," for carts, used in England, I would be glad to learn through your paper, if there are any in use in this country, and directions for constructing. If there has been none used within your knowledge, cannot some of your ingenious correspondents furnish the desired information? EDWARD HILL. *Swansboro*, *Onslow Co.*, *N. C.*, *April* 20, 1855.

CULTIVATION OF MANGOLD WURZEL.—*A Subscriber*, *N. Y.* We cannot say which is the best for milch cows—carrots, silesian beets, or mangel wurzel. For horses we should prefer carrots, for milch cows, perhaps, mangel wurzel. All three are excellent roots that you cannot well grow too many of. We have given an article on the cultivation of carrots in a previous number of the COUNTRY GENTEMAN. For mangel wurzel the soil should be made as rich, deep, and mellow as possible. Plant in rows two and half feet apart and one foot to 15 inches apart in the rows. Soak the seed 24 hours before sowing, and drop four or five seeds in each hill, thinning out all but one in a hill at the first hoeing. Superphosphate of lime, half an ounce in each hill, *dropped with the seed*, will be very beneficial, and *will pay* if you get a good article. The last week in May is early enough in this climate to sow mangel wurzel. Silesian beets may be cultivated in the same way.

BASKET WILLOW.—*C. S. Perrine*, *Randolph*, *Vt.* There can be no doubt that the judicious cultivation of the basket willow, is now, and will continue to be, highly profitable. We see nothing improbable in the assertion of your neighbor that "from $150 to $200 per acre can be made from them." Low, swampy land, in our opinion, can be used in no other way to better advantage.

F. F. GIBSON, *Matagorda*, *Texas*. L. G. MORRIS, Mount Fordham, Westchester Co., N. Y., has some excellent Essex and Suffolk pigs. You can apply to him "with confidence as to being fairly dealt by."

DISSOLVED BONES.—*M. Wynkoop*, *Catskill*, *N. Y.* With bones at the price you name—$10 per ton—and sulphuric acid at from two to two and a half cents per lb, you may manufacture and use superphosphate of lime with profit—as a manure for turnips, lettuce, celery, tomatoes, cabbage, and *possibly* for Indian corn.

S. TOWNSEND, *Magnolia*. *Ind.*—We should prefer Peruvian guano, for wheat or corn, to any superphosphate of lime in the market.

TILLINGHURST'S CHURN.—*C. D. S.* We do not know where it can be procured. We shall be glad to receive the notes on gardening to which you refer.

WIRE FENCES.—Allow me through your valuable paper to inquire if wire fences have been found to answer a good purpose; have they proved durable, and efficient in keeping out horses, cattle and hogs, and what is the cost of them per yard. What sized wire, and *what kind* is the best, where can it be procured on best terms, &c. Please give some instructions for making the fence in the best manner, and you will much oblige me. I have some volumes of the Cultivator, the latest of which (1850) has a number of articles on the subject of wire fences, but before making one I should like to have the result of longer and more recent experience. I have a river front of some 3000 feet subject to overflow, and wish to get a permanent fence—a row of locust extends along the entire front, to which I propose to fasten the wires with staples. The trees are rather irregular but not much out of line, and about five feet apart. How would a hedge of Osage Orange answer in such a situation? Would it stand the overflow which occurs only in winter or very early in the spring? B. F. T. *Louisville, Ky.*

Stump Machine.—I would like to inquire through the columns of the *Country Gentleman*, if any of its Central New-York readers know where a stump machine can be hired, and do they work by the stump or by the acre? also how much does it cost per acre to clear off a cedar swamp, all fit for the plow? There are 7 or 8 acres; half is chopped off and drained, but the other is not drained. Oneida. *New-York Mills.*

Windmills.—J. F You will find a description of Holliday's Windmill which we think will answer your purpose, in the 4th vol. of the Co Gent, p. 254. We do not know its cost or the manufacturer's address. If any of our readers have used this machine, we should be glad to learn whether it has worked satisfactorily or not.

Orchard Grass.—Can you tell me whether orchard or cocksfoot grass are to be had at New-York or any where on the rout from New-York to Cleveland, the nearer to Cleveland the better. James W. Suliot.

We presume it can be obtained of H. C. White, Buffalo. If you will furnish your P. O. address, we will send the Jan. Cultivator as requested.

Mowing Machines.—Wishing to purchase a mowing machine, and having read R. L. Allen's advertisement of Allen's patent mower, in your valuable paper the Country Gentleman of January 4th, and liking the light draft as well as the moderate motion of the team, it has induced me to inquire through your paper, if it has been used by any one of your subscribers. Any information from those who have used it, will oblige a subscriber. S. S. S. *East Moriches.*

Western Ag. Papers.—I think of going West, and will be much obliged if you will inform me through the Cultivator, from what paper I can obtain the best information relative to farming there. A Constant Reader. *Salem, Mass.*

We can heartily recommend the *Prairie Farmer*, Chicago, Ill., monthly, $1—the *Michigan Farmer*, Detroit, monthly, $1—the *Ohio Cultivator*, Columbus, semi-monthly, $1, and the *Ohio Farmer*, Cleveland, weekly, at $2.

Water-lime Cement for Stables.—I would like to inquire through the columns of your paper whether there is a good substitute for plank for stable floor? Would water lime answer the purpose; is it better than quick lime, or would the two mixed be preferable? L. S. Wells.

Will some of our experienced correspondents answer the above.

Salt and Lime Mixture.—*J. N. C.* We believe it is *impossible* to get salt and lime to re-act on each other so as to produce chloride of calcium and carbonate of soda. Chlorido of calcium will decompose *carbonate* of ammonia, forming carbonate of lime and chloride of ammonia. But if carbonate of soda is present the chloride of ammonia would of course be reconverted back into the volatile carbonate of ammonia and chloride of sodium. So that, even would the change take place that is claimed by the advocates of the salt and lime mixture, it would not be of much utiltiy as a "fixer" of ammonia in composts.

N. Anderson.—You will find some excellent articles on the cultivation of hops in the *Cultivator* for 1853.

Longrooted Clover.—A correspondent has seen in some work a description of a longrooted clover which came from Hungary, and which from the description may prove valuable in seasons of drouth. If any of our readers know what it is, we shall be pleased to hear from them.

Corn for Fodder.—A subscriber in Vermont, wishes to know what variety of corn is best for cultivating as green fodder for cows. Will some of our readers who have had experience sufficient to decide the point, give us their opinion.

Can you or any of your contributors give me any information, as to a remedy for stoppage in cows' teats, up near the udder. On trying the probe, it appears to be formed on the inside of the teat, and to fill it nearly up with the exception of a small hole in the middle. M. S. *Hobart, N. Y.*

Disease in Cattle.—The cattle of this place have been affected with a disease, that, so far, I have been unable to learn its name, and what is of more importance, its cure. I write to know if you, or any of your subscribers can give me any information. Its symptoms are various. Some of the cattle have their throat between their jaws swell, and become hard, while others have several small bunches on their jaws and throat. Some of these we have opened, and found matter in them. Some of these have got well, while others have not. This is its mildest form. Some have their throat, jaws, lips and tongue, swell, while they are continually slobbering and frothing at the mouth. Others simply slobber without swelling much. In all cases it takes their flesh very fast. Have you ever seen anything like it? C. K. B. *Denmark, Iowa.*

The Chinch Bug.—The Co. Gent., No. 117, (March 29, p. 201,) asks for information respecting the chintz bug, as it is incorrectly called. The chinch bug is described in 2d edition (1852) of Dr. Harris' "Treatise on some of the Insects of New England, which are injurious to vegetation," page 172; and an account and enlarged figure, may be found in the Prairie Farmer for Dec. 1845, vol. 5, p. 287; see also Prairie Farmer for Sept. 1850. Dr. Harris calls it "Lygæus leucopterus," of Say.

Those persons who have but little knowledge on the injurious insects, so plenty on plants of all kinds, will find Dr. H.'s work just the thing for them. Beside the descriptions of a great number of injurious insects, it also contains in the introduction, an explanation of the parts of insects, and their division into orders, &c. Knowing very little on the subject before I procured the work, I have found it quite useful, as it describes many kinds found here. It was printed by White & Patten of Boston, Mass, and I suppose may be found at the book stores in Boston, or ordered from there. My copy ordered from B., cost $2.50 at Chicago. E. S. L. R. *Kendall, Ill.*

How to Set Fence Posts on Rock.—In answer to the inquiry of one of your correspondents, I would suggest the following plan: Drill a hole in the rock, and bore a corresponding hole in the bottom end of the post. Insert a round bar of iron of sufficient length and size to fill the hole, and drive down your post If you want to make *particularly fast work*, split the ends of the iron, put in a small iron wedge, and when drove home, it must stay till the iron rusts or the rock is blasted. This is the way mudsills or mill dams are bolted to the rock bottom in this country. H. Van-Ostrand. *Rock City Mills, N. Y.*

A. M. B.—Elder bushes, it is said, may be destroyed by mowing them two or three times during summer. Pruning should be done late in the fall, in winter, or in midsummer. If performed in the spring the flow of sap is apt to injure and cause the decay of the wood at the wounds.

Mushrooms.—*Minnesota.* You will find some of the English methods of cultivating the mushroom, described in the Fruit, Flower and Vegetable Gardener's Companion. We question, however, whether the Euglish plan would be suitable to our climate, and we should be glad if some of our readers who have had experience in the cultivation of this delicious vegetable, would give us a short article on the subject.

Wind Mills.—Halliday & Chaffee manufacture them at Ellington, Conn.

Mixing Ashes with Plaster.—I have been in the habit for many years of using unleached wood ashes, mixed with about half their weight of plaster, as a manure for corn. I throw a small handful on the hill after the corn is up, and previous to the first hoeing. I think the application on my soil has generally been beneficial and profitable. But a scientific neighbor of mine tells me that, if I would apply the ashes and plaster separately they would produce a better result. He says that plaster is composed of sulphuric acid and lime, and that potash has a stronger affinity for sulphuric acid than lime has; hence when ashes are mixed with plaster the potash of the ashes unites with the sulphuric acid of the plaster, which neutralizes the potash and lessens its fertilizing value. Is this correct? Will such a change take place, and if it does is it injurious? It is a question of much practical interest and you will oblige at least one of your subscribers by giving definite information on the subject. H. E. *Ogden, Monroe Co., N. Y.*

A solution of caustic potash mixed with a solution of sulphate of lime (plaster) *will not* take the sulphuric acid from the lime. A solution of *carbonate* of potash *will*. Lime has a stronger attraction for sulphuric acid that potash, soda, or ammonia; but carbonic acid has a stronger affinity for lime than it has for potash, soda or ammonia, hence when *carbonate* of potash or ammonia is brought into direct chemical contact with sulphate of lime, as in solution, the carbonic acid unites with the lime and the sulphuric acid with the potash or ammonia. In this case the insoluble carbonate of lime is formed and sulphate of potash or ammonia.

Even admitting that all the potash in the ashes is in the form of a carbonate, we question whether, as you mix them, in the *dry state*, any change will take place. We believe it *will not;* and as it is more convenient to apply ashes and plaster together than separately we see no sufficient reason for adopting any other mode of application, than the one you have so long practiced with success. We should be glad, however, if you would test this *opinion* by applying, on a portion of your corn field, ashes and plaster mixed, and the same quantity separately. Scientific *farmers* rather than chemists must solve most of these practical problems.

Leather Clippings as Manure.—*A. G. Shaw, Oneonta, N. Y.* In the Country Gentleman of April 19, you will find an answer to an inquiry as to the value of leather scrapings, &c. There can be no doubt of the great fertilizing value of "the clippings and shavings which accumulate in a boot and shoe manufactory." But the best mode of applying them is an open question. We know of no "economical method of reducing them to a pulpy substance." Lime and ashes would decompose and reduce them, but they must not be used, inasmuch as they would drive off nearly all the ammonia. Soaking them for a few weeks in a manure tank, and then making them into a compost with barn-yard manure and loamy soil or muck is the best method of reducing them we can recommend to you. Or, after soaking, apply them directly to the soil, and plow them in. We shall be glad to hear from any of our correspondents who have had experience in this matter.

* * *

Flax.—The legislature of Maine has made an appropriation of $500, to be awarded the coming season, in premiums to encourage the growth of flax in that state.

The Osage Orange for Hedges.

Messrs. Editors—A farmer from Hadley, Mass., is making inquiry in relation to the hawthorn for fencing purposes, and also for other plants for the same purpose. It is but little I could say in favor of the hawthorn if I should undertake it; consequently, I will leave that for those who wish to advocate its qualities for that purpose. But I have a little to say to those farmers who wish to cultivate beautiful, durable and living fences, in favor of the Osage Orange. In 1852, I was traveling to the south and west about four months, and one of my objects in traveling was to learn what could be said in favor of the Osage Orange for fencing purposes. I found no objection to it by any person that had any experience in its cultivation.

Since that time, I have been engaged in raising the plants from the seed, and lining my own farm as well as my friends and neighbors, with this beautiful hedge. Its growth is rapid when young, and it will mature in four years. But I have seen it protect corn-fields in three years after the plants were set. The foliage is a dark shining green, and every leaf is guarded with a stout sharp thorn. The blossoms are very fragrant, and the fruit is large and resembles the common orange.

The seed should be sown in rows about eighteen inches apart, and the next spring they are ready to be transplanted in the hedge. My price for setting them in a hedge, is sixty cents per rod, after the ground is prepared. I would here state that a great share of the orange seed brought into this country is spurious or bad seed, owing to the manner in which it is cured or put up for market. For this reason I intend to embark for Texas in October, to procure seed that I can rely upon. If any of my friends wish to procure good seed, they can send in their orders to me. N. Bancroft. *Medina, Orleans Co., N. Y.*

Those who wish to procure the seed of the Osage Orange, will be sure of getting a good quality by applying to H. W. Pitkin, Manchester, Conn., or to his agents. See his advertisement.

* * *

Leghorn and Spanish.

Messrs. Editors—On the 4th of April, 1854, I purchased twelve hens, a cross of Leghorn and Spanish breed. Below I send you a correct account, as kept by me, of the number of eggs laid by them during the last twelve months. Their food consisted of corn, mixed ground feed and scraps from the table, with free access to oyster shells and lime. Five of the hens were in the mean time setting.

April,	197	November,	100
May,	194	December,	44
June,	105	January,	188
July,	103	February,	112
August,	173	March,	201
September,	170		
October,	157		1744

Clinton Place, N. J. R. Fleming Yelverton.

* * *

Wash for Trees.—It is said the best wash for the bark of fruit trees, is a solution of the *soda* of the shops.

Notes for the Month.

☞ In answer to numerous inquiries in regard to *Back Volumes of the Cultivator*, we will say that we have on hand the First Series of Ten Volumes (1834—1843) *complete*. Of the New, or Second Series, we have those for 1844, 1845, 1849, 1850, 1851 and 1852; while we have *not* those for 1846, 1847 and 1848. If any of our subscribers are willing to dispose of either of the last three, we will gladly give One Dollar per copy for them

The *Third Series*, beginning with 1853, we can supply in any numbers; and it offers an excellent opportunity to begin the purchase of a set, to which subsequent volumes may be added, as they appear.

Any of the above volumes, we will now send, as they belong to broken sets, neatly bound and postage *prepaid*, for $1.

☞ Some who send us the money for the *Annual Register of Rural Affairs*, desire to have it forwarded "if we have any left." We desire to give notice, not only that we "have a few of the same sort" yet on hand, but that the REGISTER is *not* a mere Almanac, saleable only at the beginning of the year, but a *Book* of permanent value, as well as containing a great variety of beautiful illustrations. We shall *always* keep it on hand. And there is not an enterprising lad who reads this paper, who might not dispose of, from a dozen upwards, in his own immediate vicinity. We send them *postpaid* for $2 a dozen—Retail price Twenty-five cents each.

☞ We cannot supply *complete sets of the* COUNTRY GENTLEMAN. We have the volumes for 1854 bound or in numbers—price of the latter $2, of the former $3.

We can no longer send the back numbers of this volume from January 1., and subscriptions will now have to commence with April 1, or the time at which they are paid, as may be preferred,—unless the subscriber chooses to take the back numbers *excepting* that for Feb. 1 which is wanting. In this case it should be so specified in ordering the paper.

LIEBIG'S RELATIONS OF CHEMISTRY TO AGRICULTURE.—A writer in the *New-York Daily News*, thus concludes a lengthy review of the work of Liebig, issued by us a few weeks since:

"We heartily recommend the perusal of this defence of the mineral manure theory to the scientific agriculturists of the State; it is worthy of its illustrious author, and is a model of scientific analysis. No agricultural library will be complete without it; every sentence is rich in that knowledge which gives the power to make two spears of grass grow where but one did before. The work is published at Albany, by LUTHER TUCKER, at the office of THE COUNTRY GENTLEMAN, and the cost is so small—25 cents a copy—as to place it within the reach of every farmer in the land."

—— This is a most delightful little treatise on a scientific topic. In the hands of ordinary men scientific discussions are generally dry and uninteresting. In the hands of such a scholar as Liebig, they are always radiant with beauty, even to the humblest comprehension. We can commend this volume for its scholarly research, and its adaptation to the needs of the farmer. *Ohio Far.*

—— This work should be read by such persons as intend to keep themselves acquainted with the various discussions in regard to the application of chemistry to agriculture.—*Boston Cult.*

—— It were well if this treatise were largely circulated and studied.—*N. Y. Times.*

FAIR OF THE NEW-YORK STATE AG. SOCIETY.—The Executive Committee of this Society met at Elmira last week, and selected the ground for holding the next fair. They have also made arrangements with the various Railroads for conveying the stock, &c., free, and passengers at reduced rates. Elmira manifests much public spirit and enthusiasm; the grounds are said to be superior to any on which the fair has yet been held, and everything promises well for the success of the exhibition.

OHIO STATE FAIR.—Our good friends in Ohio, have at length concluded to hold their State Fair this year at Columbus, September 18 to 21. The *Ohio Farmer* says: "If we have as large a crop as prospects would indicate, the next State Fair of Ohio will be the best ever held in the United States. *Let every body begin now to prepare for it.*" We would commend this advice to the farmers of our own state. The Ohio Board of Agriculture have introduced a new feature into the Premium list. Every exhibitor who draws a premium will receive, in lieu of a part of the money or plate, a copy of the *Ohio Farmer* and *Cultivator*. This it is thought "cannot fail to be popular with the people." The papers named are among the best in the country, and every farmer in Ohio ought to take both of them. We feel confident that every Ohioan with intelligence sufficient to enable him to produce anything worthy of a premium is already a subscriber, and we question if he were at liberty to take the cash next fall or the paper for the following year, whether he would not prefer the former. We trust, however, the plan will have a fair trial and prove popular.

☞ The NEW-JERSEY STATE AG. SOCIETY, is to hold its first exhibition at Camden, opposite Philadelphia.

GEORGIA STATE FAIR—The 10th annual Fair is to be held at Atalanta, commencing on the 10th of Sept.

COL. MORRIS' CATALOGUE.—We have received Col. MORRIS' Catologue of Stock which he offers at private sale, the present year. It is illustrated by 12 or 15 portraits of prize animals belonging to Col. M. and Mr. BECAR, and includes Short-Horn and Devon Bulls, thorough-bred Horses, South Down Sheep, Suffolk, Essex and Berkshire Swine. [See Col. M.'s advertisement.]

THE WHEAT CROP.—From all quarters the most cheering accounts are received of the appearance of the wheat crop. A large breadth of winter and spring wheat has been sown, and with a good harvest we may hope that the effects of last year's drouth will be counterbalanced by the unparelleled agricultural prosperity which even average crops cannot fail to produce.

JOURNAL OF THE U. S. AG. SOCIETY.—We are indebted to M. P. Wilder, Esq., for the *Journal of the U. S. Ag. Society* for 1854. It is a volume of some 250 pages, containing the transactions of the society at its annual meeting and at the Springfield cattle show, and reports from the state Agricultural Societies of Vermont, Michigan and Illinois. The remainder of the

Journal is devoted to a number of excellent papers on a variety of subjects interesting to the agriculturist and horticulturist. Many of these we have read with pleasure and shall allude to them in a future number.

On the whole, this volume is an improvement on its predecessors, though it is hardly calculated to advance materially the credit of the society at home, or to produce a very favorable opinion of the state of American agricultural science abroad.

We have also received Part 1 of the Journal for 1855. It is a pamphlet of 35 pages, and contains the proceedings of the society at its last annual meeting, the address of the President, &c, &c.

Death of Hon. C. P. Holcomb and Thomas Hancock.—Since the last meeting of the United States Agricultural Society, two eminent friends of rural improvement who were then present and took a warm interest in the proceedings and welfare of the Society, have been removed from their labors. Col. C. P. Holcomb, of New Castle, Del., and Thomas Hancock, Burlington, N. J., will be mourned not only by a large circle of immediate relatives and friends, but by thousands who, like us, have known them for years as the true and tried friends of agriculture and horticulture.

☞ It argues well for the intelligence of our agricultural population, that scientific works are so extensively purchased, that publishers can afford to sell them at a cheaper rate than in any other country. Thus Boussingault's Rural Economy—one of the very best scientific agricultural works extant—is sold in England, for $4.50. Here the same work sells for $1.25. The difference in the price of Johnston's Agricultural Chemistry is also quite as great, and so it is with nearly all scientific works. Leibig's last book—"The Relations of Chemistry to Agriculture"—which is here sold for 25 cents, is sold in London, as we see from the last *Mark Lane Express*, for 84 cents. In this last case, nothing but *the difference in the demand* can account for the difference in price.

Connecticut State Ag. Society.—We are indebted to John T. Andrew for the Transactions of this Society for 1854. It is a neat volume of some 318 pages in paper covers, and contains the usual reports from County Societies, which, in this instance, are of more local than general interest. There are some valuable communications, and some which hardly merit a place in these Transactions. To some of these we may refer at a future time.

The Society appears to be in a highly prosperous condition; the receipts during the last fair at New Haven, were $7,653 97, and from all sources $12,743,20. The total expenses were $7,504.77. This is doing well for so young a society.

The Augusta Rose.—Efforts having been made to impress upon the public the idea that this rose was not what it was represented by its proprietors—that it was indeed nothing more nor less than the well-known rose "Solfaterre,"—Messrs. Thorp, Smith, Hanchett & Co. of Syracuse, who first introduced it, have issued a circular, in which they show, by the testimony of such men as Col. Wilder, Geo. C. Thorburn, H. W. Sargent, Thos. Rivers, the celebrated rose grower of England, and other eminent florists, that the Augusta is just what it was represented to be by its proprietors—a seedling yellow rose, quite different and in many respects superior to the celebrated Solfaterre. It is stated that this latter rose has been repeatedly sold as the genuine Augusta, and purchasers are cautioned against this imposition.

Oxford Downs.—The *Wool Grower* says: "The Oxford Downs are a mongrel, produced by crossing the new Oxford and the Downs, and *bred only for the shambles*." We had supposed that, in the hands of such men as the Messrs. Druce of Eynsham, the Oxford Downs had become as distinct a breed, with as much fixity of character, as the Hampshire, or certainly as the Shropshire downs.

Clare Sewel Read, in his valuable Prize Essay on the Farming of Oxfordshire, speaking of a flock of these sheep says: "The rams were sold by auction; 61 were disposed of this year, 52 by sale, and 9 by hire. The average was about £12 each, a fair indication of the high position these sheep hold in public opinion." *Sixty dollars* is not a bad price for mongrel sheep bred only for the shambles.

Cure for Garget.—Asa Hubbard, Middletown, Ct., writes us that he has an old cow that has been attacked with garget several times. He gives her half a table-spoonful of salt petre three days in succession in some meal, which immediately effects a cure. Another cow which would not eat the meal, was drenched with the same quantity of saltpetre dissolved in warm water; a seaton of poke-root placed in her dewlap, where it remained till the parts were much swollen, and she was cured.

A correspondent of the *Ohio Farmer*, gives the following as a sure cure for garget:

> "Take raw linseed oil and rub all over the cow's bag, which, if done on the first appearance, is all that is needed generally, but two or three applications always have cured the most stubborn cases, and is easily done."

Standard Weight of Grains in Canada.—The following table shows the weight of a bushel of the different grains, &c., as fixed by a recent enactment of the Canadian Parliament:

Wheat,	60 pounds
Indian Corn,	56 pounds
Rye,	56 pounds
Peas,	60 pounds
Barley,	48 pounds
Oats,	34 pounds
Beans,	60 pounds
Clover Seed,	60 pounds
Timothy Seed,	48 pounds
Buckwheat,	48 pounds

Protecting Corn from Birds.—Noticing several inquiries and replies as to the best means of protecting corn, when planted, from the depredations of birds, &c., in your paper, I beg to give your readers a cheap, simple and efficient remedy, and much more pleasant in its application than tar. Take one lb. of tobacco, soak it in four gallons of rain or river water a day or so; then immerse the seed in the liquid twenty-four hours, or if the farmer please, until the corn sprouts, and he can plant with the assurance that his corn will be better for the process, and that whatever men do, *birds will not chew tobacco.* H. G. Foote, *Sec'y St. Lawrence Ag. Soc.*

Trial of Mowers—A trial of Mowers is to take place near Rochester, N. Y. on the 5th of July, under the auspices of the Monroe County Agricultural Society.

◆

Butter Making.

Not one pound in five of the butter sold in our cities under the name of "Goshen," &c., and very little "Country butter" is fit for human food. Butter makers should remember these few short rules:

The newer and sweeter the cream, the sweeter and higher flavored will be the butter.

The air must be fresh and pure in the room or cella where the milk is set.

The cream should not remain on the milk over thirty-six hours.

Keep the cream in tin pails, or stone pots, into which put a spoonful of salt at the beginning, then stir the cream lightly each morning and evening; this will prevent the cream from moulding or souring.

Churn as often as once a week, and as much oftener as circumstances will permit.

Upon churning, add the cream upon all the milk in the dairy.

Use nearly an ounce of salt to a pound of butter.

Work the butter over twice, to free it from the buttermilk and brine, before lumping and packing.

Be certain that it is entirely free from every particle of buttermilk, or coagulated milk, and it will keep sweet forever.

In Scotland, a syphon is sometimes used to separate the milk from the cream, instead of skimming the pans.—*Southern Cult.*

◆

Valuable Recipes.

New-York Cake.—1 cup of butter, 2 cups of sugar, 2 cups of flour, 6 eggs, 1 tea-spoonful of cream tartar, one-half of soda; 1 cup of raisins, and 1 of currants, can be added if you wish fruit cake, by leaving out the soda and cream tartar.

Boston Cake.—1 lb. 2 oz. flour, 14 oz. sugar, 12 oz. butter, ½ lb. raisins, 4 or 6 eggs, ½ gill brandy, 1 gill milk.

Composition Cake.—1¾ lbs. of flour, 1½ lbs. sugar, ½ lb. butter, 4 eggs, 1 pint sour milk, a tea-spoonful of saleratus, spice and fruit to your taste.

Puff Pudding.—1 quart of milk, 4 eggs, 9 table-spoonfuls of flour, 1 salt-spoonfull of salt. Bake as long as any pudding.

Wine Jelly.—1½ ounces of isinglass, 1½ lbs. of sugar, 2 lemons, 1 quart of wine. Make a syrup of the sugar, and clear it by putting in the lemon, cut in slices. When you put on to boil, the isinglass must be dissolved into the syrup. When nearly cold, add the wine.

Salsify or Vegetable Oyster.—We could never perceive much resemblance in the taste of this vegetable to the real oyster; but we know a person who cooks it in such a manner that every one that tastes it, pronounces it delicious. The mode is as follows:—Salsify is scraped and washed; then cut into thin pieces across the roots, boiled, in just sufficient water to cover them, till they are very tender. When done, they should be dressed with vinegar, pepper and salt, and a little butter; or instead, a dressing of eggs and flour beaten together and poured over them.

Shanghais.

Messrs. Editors—I noticed some time ago in your valuable paper, a call upon Shanghai raisers, to give the weight of some of the largest fowls. I have looked in every No. since, and have not seen an answer to it. Now I think that the weight of a fowl should be one of the tests of a superior breed, and the number of eggs they lay in the year another. I have a pair of Shanghais that weigh, when fat, 21 lbs.—the hen nine, and the cock twelve. They are the Pheasant breed of Shanghais. The hen commenced laying the 10th September, and continued to lay an egg every day until the 12th or 14th of March, without any intermission, which would make an aggregate of over one hundred and eighty eggs in six months. Now I should like to hear from some of your correspondents, how this will compare with the weights and laying of the best breeds. Yours respectfully, A Tennessean. *Nashville.*

◆

Garden Seats.—A correspondent of the Gardeners' Chronicle says:—Every one finds great difficulty in keeping garden seats more than a year without constant painting. Gutta-percha thinly laid on, and turned round the sides and nailed, will last forever; it looks garden like, and costs no more than one painting."

Horse Powers—Threshers—Eagle Fan Mills.

ALLEN'S IMPROVED HORSE POWER. It runs uncommonly easy, and does not require more than half the elevation at the forward end, of other Powers.

Threshers, both over and under-shot, made in a superior manner.

Eagle Fan Mills, *the best and cheapest Grain and Seed Separator made.* The superiority of this Fan Mill consists,

First—In cleaning without a screen, by separating the impurities, such as chess, cockle, smut, &c., by the blast alone, consequently saving the loss of the small sound kernels of wheat which must go through a screen.

Second—An arrangement by which a part of the sound and perfect grains are separated from the rest for seeding, leaving the balance in a good marketable condition, so that the farmer need sow only such grain as contains the germ of growth.

Third—Smaller seed, such as grass and clover seed, are cleaned in the most perfect manner.

Fourth—Fans built on this plan will clean grain both in the first and second cleaning, faster and better than any others now in use.

Fifth—The cheapness and durability of its construction.

R. L. ALLEN, 189 and 191 Water-st., New-York.

May 17—w,24,26,28,30—m2t

FORBUSH'S IMPROVED
Mowing and Reaping Machine.

THIS valuable Harvester can now be had at the *NORTH RIVER AGRICULTURAL WAREHOUSE.*

Persons wishing circulars with testimonials, can have them forwarded by addressing GRIFFING & BRO.,
60 Cortland-st, New-York.

☞ The above Machine is warranted to cut from 10 to 15 acres of grass or grain per day. May 24—w8tm2t

DOMESTIC ANIMALS
AT PRIVATE SALE.

L. G. MORRIS' ILLUSTRATED CATALOGUE, with prices attached, of Short Horned and Devon Bulls and Bull Calves, a few Horses, South Down Rams, Berkshire, Suffolk and Essex Swine, will be forwarded by mail (if desired,) by addressing L. G. MORRIS, Fordham, Westchester Co., N. Y., or N. J. BECAR, 187 Broadway, New York. It also contains portrait, pedigree, and performances on the turf of the celebrated horse "Monarch," standing this season at the Herdsdale Farm. May 3, 1855—w&mtf

Improved Superphosphate of Lime.

THIS superior article of Fertilizer may be had, put up in bags weighing 50, 100, and 160 lbs. each—price, $45 per ton of 2000 lbs.
A. LONGETT,
34 Cliff Street. Corner of Fulton,
New-York.
April 26—w6tm2t

Appleton & Alderson's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

THE subscribers are prepared to furnish Drain Tile of the various and most approved Patterns, at from $12 to $18 per 1000 pieces. The Tile are more than 14 inches in length and a larger calibre than any of American manufacture for the same prices. We warrant every Tile to be perfectly sound, to fit good at the joints so as to admit water and keep out the dirt, and to drain Land from 12 to 20 feet on each side of the drain, according to the nature of the soil.

Also, large Tile for small brooks and drains about dwellings, &c , at from $4 to $8 per 100 pieces.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at Messrs. L. & W. Merchant's, 71 Quay-st.

Full directions for laying Tile will be sent free to those addressing the subscribers. Orders are respectfully solicited.

Address, APPLETON & ALDERSON,
May 3—w4t 195 Washington-st., Albany, N. Y.

Thorough-Bred Short Horns.

DURHAM Bull and Heifer Calves, descended from the herds of Mr. Bates and his nephew Mr. Bell, for sale.

HERMAN WENDELL, M. D.
Nov. 23—wtf Albany.

THOMAS GOULD,

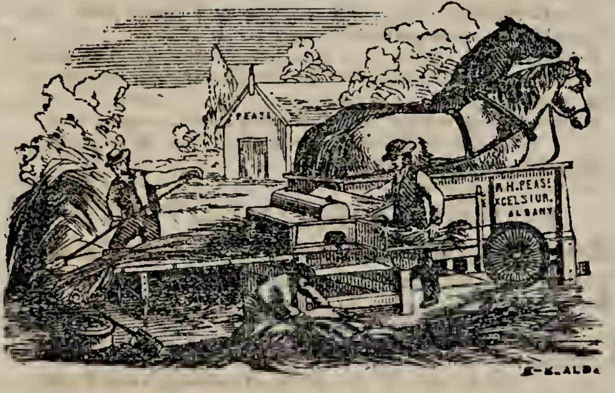
BREEDER of Durham and Devon Cattle, Leicester Sheep, Suffolk Swine, Madagascar or Lop-eared Rabbits, English Ferrets, Guinea Pigs, Choice and Fancy Poultry.

Jan. 18—w&mtf Aurora, Cayuga Co., N. Y.

IMPORTED "MONARCH."

BY PRIAM, out of Delphine by Whisker, will stand at L. G. Morris' Herdsdale Farm, 1½ mile from Scarsdale Depot, and 24 miles from New-York by Harlem Railroad. Terms: $20 the season for mares not thorough-bred, and $50 for thorough-breds. Pasturage, $3 per month. Accidents and escapes at the risk of the owner. All business connected with the horse, to be addressed to "Monarch's Groom, Scarsdale P. O., Westchester Co., N. Y." A portrait taken from life, with performances on the turf, full pedigree, &c. &c., will be forwarded by mail, by addressing

L. G. MORRIS,
March 22 Fordham, Westchester Co., N Y.



Excelsior Agricultural Works,

Warehouse and Seed Store,

No. 369 and 371 Broadway, Albany, N. Y

THE subscriber is prepared to furnish to order a full assortment of Farm Implements and Machines, adapted to all sections of the country both north and south, among which may be found,

The Excelsior Changeable R. R. Horse Power.
" " Threshing Machines with Separators
" " Cider Mill, Krauser's Patent.

Mowing and Reaping Machines, Grist Mills, Corn Shellers and Clover Hullers; Circular and Cross-cut saw mills adapted to the Horse Power, for cutting fire-wood, fence stuff &c.

The list of Field and Garden Seeds is complete—embracing most of the Premium Grains on exhibition at the recent winter Show of the New-York State Agricultural So. Among them is the Magnum-bonum Wheat, which is highly spoken of and apparently of great merit. Also a general assortment of Fertilizers. RICH'D. H. PEASE.

Feb. 22—w&mtf.

SALE OF
Imported Short Horned Cattle,
SOUTH DOWN SHEEP AND SUFFOLK HOGS.

I WILL sell by Auction at my residence on Wednesday, 20th June next, my entire Herd of Short Horned Cattle—consisting of about Twenty-five head of my choice animals. Nearly the whole of them are Imported, and their direct descendants.

Also about Seventy-five South Down Sheep. These are imported from the flock of Jonas Webb, Esq., of England, and their descendants.

Also, a few Suffolk Hogs, bred from the importation of J. C. Jackson, Esq.

Catalogues, with the pedigrees and further particulars. will be ready about 20th April, and can be had at the Offices of the different Agricultural Papers in this State, and Ohio Cultivator and Indiana Farmer, and by application to me.

Terms of Sale.—For all sums under $100, cash; over $100 to $150, three months; over $150 to $300, six months; and all over $300, six and twelve months' credit, on approved notes with interest. J. M. SHERWOOD,

April 5, 1855—w11tm2t Auburn, N. Y.

ENGLISH CATTLE,

Imported on commission by Messrs. THOS BETTS BROS., Bishop's Stratford, Herts, England — 81 Maiden Lane, New-York City.

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
Short-Horned Cattle,
Devons, Herefords, Ayrshires,
Alderney Cows from Islands of Alderney and Guernsey,
Pure bred Southdown Sheep,
Hampshire Sheep,
Cotswold, Leicester do
Suffolk Pigs,
Essex, Berkshire do
Merino Sheep from Spain,
Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England. may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane
Jan. 4—1am—m1y. New York City.

IMPORTED "BALCO," (9918.)

THIS celebrated prize Short Horn Bull, bred by Thomas Bates, Esq., Kirkleavington, England, imported and selected by Col. Lewis G. Morris, the best breeder and importer of stock in the United State, will serve a limited number of cows on the following terms, viz., $20 the season for cows not thorough bred, and $35 the season for thorough-bred. The committee on Short Horns, at the fair of the New York State Agricultural Society, held at Saratoga Springs in 1853, speaking of this bull, says, "Your committee feel it their duty to recommend for special notice the imported bull "Balco," belonging to Messrs. Morris and Becar, an animal destined to prove a valuable addition to the Short Horns of the United States. and place that valuable breed on equal footing with any which the world can produce." "Balco" will be found at the farm of the subscriber, "Wilkinvilla," near Montgomery, Orange Co., N. Y., eleven miles from Newburgh.

Also the Young Bull "Corn Planter" will serve a limited number of cows on the following terms, viz., $10 for cows not thorough-bred, and $25 for thorough-bred. "Corn Planter" was bred by Col. J. M Sherwood, Auburn, N. Y. Pasturage for those who wish it, at a moderate charge. All accidents and escapes at owner's risk.

Pedigrees of "Balco" and "Corn Planter," with portraits from life, furnished on application to me.

JAMES W. WILKIN,
Wilkinvilla, near Montgomery,
May 8—w8tm2t Orange Co., N. Y.

THE CONCORD GRAPE.

MESSRS. HOVEY & CO, No 7 Merchants' Row, Boston, are again sending out MR. BULL's new and superior Grape, the stock of which has been placed in their hands for sale. This very remarkable American variety is the greatest acquisition that has ever yet been made to our hardy native grapes, and supplies the desideratum so long wanted, of a superior table grape, sufficiently hardy to withstand the coldest climate, and early enough to ripen its fruit in any part of the Northern or New England States. It is four weeks earlier than the Isabella, and about two weeks earlier than the Diana. It is fully ripe from the 3d to the 10th of September, and fine specimens have been exhibited the last two years, at that date, before the Massachusetts Horticultural Society.

It is a most vigorous growing vine, perfectly hardy, with bunches of large size, handsomely shouldered, often weighing a pound, and with large, roundish oval berries, frequently measuring an inch in diameter; color very dark, covered with a thick, blue bloom; flesh soft, tender and juicy; flavor very rich and luscious, with a fine, sprightly aroma The foliage is large, broad and thick, and the berries have never been known to *mildew*, *rot*, or *drop off*, under any circumstances, during the five years since it has borne fruit. Good judges who have tasted it, pronounce it superior to the Isabella in its ripest condition.

The following testimony we select from a multitude of letters received from pomologists and cultivavtors, who tested the grapes last autumn:

"Our Concord grapes we purchased of you last spring, have grown finely; we think it a noble grape, and will have a great run."—*George Seymour & Co., South Norwalk, Conn.*

"They gave the utmost satisfaction, and every good judge of fruit said *they were decidedly better than the Isabella.*"—*J. D. Ingersol, Ilion, N. Y.*

"Possesses, in a high degree, the properties of a perfect grape."—*J. Reynolds, Sec. Farmers' Club.*

"The most beautiful hardy grape is undoubtedly the Concord."—*J. F. Allen, in Report of Mass. Hort. Society for* 854.

OPINIONS OF THE PRESS.

"We regard this grape as an important acquisition."—*Horticulturist, Dec.* 1854.

"Its early ripening alone ought to secure it a place in every garden."—*N. Y. Tribune.*

"On the whole, an excellent grape."—*American Agriculturist.*

"As a hardy vine, and an early, large and showy fruit for market, we shall not probably find anything to compete at the North with the Concord grape."—*Country Gentleman.*

"In appearance, larger and finer than the Isabella, and quite as pleasant in flavor."—*Ohio Farmer.*

Fine, strong one year old plants ready for sale March 1, at $3 each, or $24 per doz. Plants safely packed for transportation to any part of the country. April 26—w5tm1t

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Maclura or Osage Orange Hedges.

H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants.

IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges, given to purchasers.

G. G. SHEPPARD, New-York—P. B. MINGLE, Philadelphia—BYRAM, PITKIN & Co., Louisville, Ky., wholesale Agents.

Apply as above. April 5—w2m2m

To Agriculturists, Manufacturers, &c.

DRAWINGS and Engravings on wood, of animate and inanimate objects, executed at fair prices and in the bes tyle, by J. B. SEYMOUR,

Feb. 22—w&m3m 57 Broadway, Utica, N. Y.

N. B Portraits of animals true to nature.

Fertilizers—Established Nine Years.

KENTISH'S Prepared Guano—Price $25 per Ton. Superphosphate, No. 1, by the New-York Manufacturing Company—Price $40 per Ton. Both these articles can be had at the Depot No. 159 West Street, New-York City

March 22—w3tm3t KENTISH & CO.

YOUNG PRESIDENT.

THIS celebrated MORGAN HORSE will stand this season for the use of Mares, at the following places:

B. Badgley's, Mechanicsville, Mondays and Tuesdays—Schaghticoke, Wednesdays—Stillwater, Montgomery's Stable, Thursdays—Ketchum's Corners, Fridays and Saturdays.

PEDIGREE.—This Horse was sired by the Steel Morgan, he by the Old Sherman, and Sherman by the Justin Morgan. Dam of Young President was sired by the Hawkins Morgan, and he by the Justin Morgan.

This Horse is a beautiful dark Bay color, weighs 1,050 lbs. and is well proportioned for bottom and speed, and moves in beautiful style; will trot a mile in less than three minutes. He has formerly been kept in Orange, Washington and Caledonia Counties, Vt, where his stock is well known, and therefore we offer the names of some of the most distinguished Horsemen in those counties concerning his stock, as the following certificates will show:

EAST CORINTH, VT., April 26, 1854.

We, the undersigned, inhabitants of Orange, Washington and Caledonia counties, Vt, testify that we have been acquainted with C. M. Huckins' Horse and his stock, for the last five years, and believe that his stock has proved better than that of any other Morgan Horse ever owned in this State, both for speed and durability, and that his Colts have been sold for higher prices than those of any other Horse's colts in this State.

E. H. Craig,
Horace Mills,
John Peabody,
Robert Gray,
Charles Grow,
John Merrill,
Stephen Thomas,
S. H. Merrill,
Reuben Paige,
M. D. Blake,
Amos Garland.

Henry Ohen,
J. O. Jordan,
B. C. Jones,
J. W. D. Parker,
Ellis Bliss,
Jos. W. Bliss,
Stebbin Andross,
Jesse Johnson,
J. W. Clark,
Thomas Rowland,
Daniel Rowland.

ALBANY, April, 1855.

We, the undersigned, feeling an interest in the improvement of the stock of Horses, would recommend the Morgan called YOUNG PRESIDENT, as combining the most good qualities of any Horse in our knowledge; having witnessed his speed, we are satisfied he can trot a mile in less than 3 minutes, and goes in beautiful style.

Saratoga County.
A. E Kendall,
Benj. Badgley,
Henry Badgley,
J. Sheffere,
G. W. Wheeler, Vet. Surg..
E. P. Fuller,

Albany.
George H. Lawton,
C. V. Crapo,
Harry Yates,
Hiram Yates,
C. B. Cheever,
Geo. W. Chadsey.

TERMS.—Ten Dollars for the Season. To Insure, as parties can agree. All Mares disposed of before the usual time of Foaling, will be considered with Foal.

L. A. CHASE, Albany,
MARK FULLER, Mechanicsville, } Proprietors.
HOLDEN ENGROIN, Agent. May 17—w&m1t

NOTICE.

PERUVIAN GUANO. As there are various substances now offering for Peruvian Guano, in the New-York market, to avoid imposition, be particular to observe that every bag of the genuine Peruvian Guano has branded upon it,

WARRANTED NO. 1.

PERUVIAN GUANO,

Imported into the United States by

F. BARREDA BROTHERS,

FOR THE PERUVIAN GOVERNMENT.

When taken in quantities from 1 to 5 Tons,........$48
do do do 5 to 10 do 47
do do do 10 to 15 do 46

A further discount in larger quantity. 2000 lbs. to the ton.

A. LONGETT, 34 Cliff-st.,
April 26—w4tm1t Corner of Fulton, New-York.

A New and Improved

PATENT SCYTHE-SNATH,

MADE from *wrought iron*, light, firm and durable, and pronounced by very many who have used them for two seasons past, superior to any other Snath.

Manufactured only by LAMSON, GOODNOW & CO., (long known as makers of Lamson's Patent Wood Snaths,) and for sale at their Warehouse, No. 7 Gold-St., New-York, and by the Hardware and Agricultural trade generally, throughout the country. May 3—w1tm2t*

REMOVAL.

ALBANY AGRICULTURAL WAREHOUSE AND SEED STORE removed to 52 State st., corner of Green street. Albany Agricultural Works, on Hamilton, Liberty and Union street, Albany, N. Y.

TO THE PUBLIC.—A certain party advertising themselves as having purchased the entire stock in trade and machinery of the above named establishment, and as carrying on the same business upon their own account, we feel compelled to make the following statement:—

In consequence of the dissolution, and closing up of the business of the firm of Emery & Co., in the fall of 1853, their stock then on hand consisting only of Implements, Machinery and Seeds, was sold at auction. After which sale the subscribers respectively concluded a temporary arrangement with one of the principal purchasers at said sale, by which they continued the business with him, conveying the privilege of occupying their Albany Agricultural Works and Manufacturing and Selling under their patents their patented Horse Powers, Machinery, &c.; also, the use of patterns and castings, names, correspondence, customers, &c., as well as superintending the manufacturing business, for which said purchaser has paid them nearly twenty-five thousand dollars to Feb. 14th, 1855, being the expiration of said agreements, at which time they withdrew entirely from all connection with him or any other parties, formed a new co-partnership with themselves and are now the sole proprietors and occupants of the above Works, Patent Rights, Patterns, &c., and the exclusive manufacturers of their celebrated Machinery made by them since they first commenced business in this city.

They have recently renewed and replaced most of their operating Machinery and Tools, and are better than ever prepared to supply promptly, their Implements and Machinery, of superior quality and workmanship.

They have opened the spacious Rooms on State street, the most eligible in the city, for the display and sale of their Machinery, Implements and Seeds, which are all new and of the most approved and complete kinds extant, instead of an accumulated stock of miscellaneous Goods and Seeds of an old concern.

The attention of a discerning public is solicited to our present stock of goods, before selecting and purchasing the coming season. EMERY BROTHERS,

May 3—w&m1t No. 52 State street, Albany, N. Y.

"FALSE IMPRESSIONS."

TO THE PUBLIC.—The Agricultural Warehouse and Seed Store HAS NOT BEEN REMOVED, as certain parties have informed the Public, but "still lives" at the OLD STAND, 369 and 371 BROADWAY, ALBANY, N. Y., where a complete assortment of Agricultural and Horticultural Machines and Implements of every name and variety, manufactured by the subscriber himself and obtained from the best manufacturers in the country, can be found. The Seeds, both Field and Garden, are all of last year's growth, and are warranted pure, and as cheap, if not cheaper, than they can be bought at any other place in the city. The Sales Rooms, for the display and sale of Agricultural Machines and Seeds, are the most spacious in the city, and the stock is certainly larger and better than at any other establishment of the kind in this part of the country. A liberal discount to the trade. RICH'D H. PEASE,

May 10—w&m1t 369 & 371 Broadway, Albany, N. Y.

Black Hawk Horse Raven.

THIS Horse will stand at the farm of the subscriber in Norfolk, Conn., called the Robbins Farm, the coming season, at ten and fifteen dollars. The oldest colts of this horse are three years old. The stock is of extraordinary promise. Raven is by Vermont Black Hawk—dam has the blood of Gifford Morgan and of Cock of the Rock.

April 19—w3tm2t ROBBINS BATTELL.

Farm Lands for Sale,

IN LOTS TO SUIT PURCHASERS.

OVER 2,000,000 OF ACRES of Selected Prairie Farm Lands, belonging to the Illinois Central Railroad Company. The price will vary from $5 to 25, according to quality, location, &c. The purchase money may be payable in five equal installments, the first to come due in two years from date of contract, the others annually thereafter—giving six years to pay for the land, with a charge of only *Two per cent per annum interest*. The first two years' interest payable in advance. The Company's construction bonds received as cash. Apply to CHAS. M. DUPUY, Jr.,

Land Agent Ill. Cen. R. R. Co.

March 15—m6t* No. 84 Lake St., Chicago, Ill.

Hay Presses, Hay Presses.

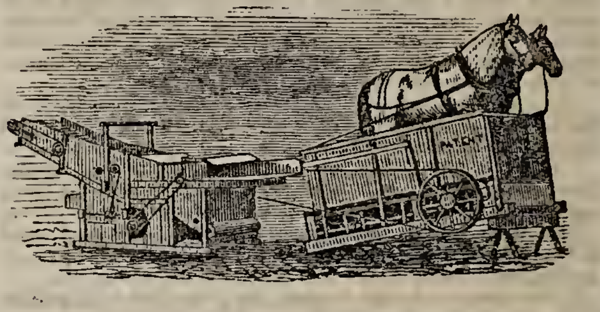
DEDERICK'S PORTABLE PARALLEL LEVER HORIZONTAL AND VERTICAL HAY PRESSES.

THESE Presses are so constructed that they can be taken apart at the manufactory, and (by the printed directions accompanying each press) put together again in a couple of hours by any two farmers, without the aid of a mechanic. They are so conveniently portable that they can be moved from one field or farm to another, as a sleigh is moved, by a pair of horses or oxen, and for convenience and power of operation they are altogether unequalled. They are now being shipped to all parts of the country, and are in every instance giving the most decided satisfaction. With two men and a boy to attend the horse, one of these machines will bale from 6 to 8 tons of hay per day, according to the No. or size of the press. Prices, from $130 to $175. For circular, with full description, apply personally or by mail to the subscribers.

DEERING & DICKSON,

Premium Agricultural Works,

May 10—w&meowtf Albany, N. Y.



G. WESTINGHOUSE & CO.

CONTINUE the manufacture of Threshing Machines Clover Cleaners, Wood Saws, &c., at Central Bridge Schoharie Co., N. Y.

We have improved our Thresher and Cleaner, (and for which we have obtained a Patent last year,) which works superior to anything of the kind in use, and has given entire satisfaction where used.

Our Horse-Power, Thresher and Separator, has the name of being the best machine in use, where known. Those wanting machines will be more likely to get them when wanted by ordering them early, as we shall not be able to make more than 100 of them this season. Last year we did not supply the demand by a large number, being unable to get them out in time.

Further information given on application by mail otherwise.

G. WESTINGHOUSE & CO.

Central Bridge, N. Y.

May 3—w22,24,26,28,30,32—m3t

SUPERIOR THOROUGH-BRED

Devon Cattle and Essex Pigs for Sale.

THE subscriber, having this day purchased from Mr. W. P. Wainright, his interest in the herd of Devon Cattle hitherto owned conjointly by them, will continue to give his strict attention to the breeding and raising of this increasingly popular breed. Having now a herd of over twenty head, bred entirely from animals of his own importation, he is enabled to offer for sale a few young Bulls and Heifers, of very superior quality.

Also constantly on hand, thorough-bred ESSEX PIGS, descended from the best imported stock.

For full particulars as to age, price, pedigree, &c., address

C. S. WAINRIGHT,

April 1—m3t Rhinebeck, Dutchess Co., N. Y.

FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPER & Co., 41 Water St., New-York; Caleb Gasper, Esq., Marcellus, Onondaga Co., Geo Young, Esq., Milo Center, Elias Bently, Esq., Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N. Y., Judge Ellsworth, Pen Yan. March 1—mtf—

DISSOLUTION.

THE co-partnership heretofore existing between the subscribers, under the name and firm of H. BLANCHARD Co., is this day dissolved by mutual consent. Either party will sign in liquidation.

HOMER BLANCHARD.
T. M. BURT.

Kinderhook, March 31, 1855.

NOTE.—All communications relating to the business of the old firm of H. BLANCHARD & Co., should be directed to Kinderhook, N. Y.

CO-PARTNERSHIP.

The subscribers have formed a co-partnership under the name and firm of H. BLANCHARD & Co. for the transaction of a Commission Wool business in the city of Hartford, Conn.

HOMER BLANCHARD, Kinderhook.
LAWSON C. IVES, Hartford.

Hartford, March 31, 1855.

CIRCULAR.

It is now ten years since the subscriber started the WOOL DEPOT system, it being the first attempt at a close classification of Wool in the fleece in this country; four years alone, and six years in company with Mr. T. M. BURT, who now retires from the business. His experience but confirms the position which was taken by the friends of this enterprise in its infancy; that there is no other system yet devised, which is so appropriate to meet the wants and necessities of the wool-grower, dealer or manufacturer, as the close classification of Wool in the fleece. The manufacturer can obtain the grade he wants, and the seller of Wool the relative value of each grade, quality and condition considered; thus affording facilities and encouragement for improvement.

The present location is not deemed by himself, and many of the friends and patrons of the Depot system, as favorable for effecting ready and quick sales as a more central one, easy of access, and in the immediate vicinity of manufacturing establishments. He has therefore formed a copartnership, as above stated, and will remove the Kinderhook Wool Depot business to the city of Hartford, Conn. There is annually manufactured within four hours' ride of that city, more than twelve millions pounds Wool; and within six hours' ride, more than one-half of all the wool worked by manufacturers in the United States.

The same system of classification will be continued as practiced at Kinderhook. Also the services of the same sorter retained. The same charges for receiving, sorting, storing and selling, viz: one and a half cents per pound and the insurance, when sales are made for cash as heretofore. In order to possess additional facilities for selling, sales will be made on time, when they can be more readily effected or better prices obtained, than for cash In all such cases where time sales are made, the payment will be guaranteed, and the usual guarantee commission of two and a half per cent. on the amount of sales, will be charged additional.

Advances will be made in cash or by acceptances, as may be agreed upon. Sacks furnished to consigners by charging 25 cents each for their use.

Thankful for the liberal patronage and confidence bestowed, the subscriber respectfully solicits a continuation of past favors, and confidently hopes, and firmly believes, that he can better promote the interests of his consignors by a change of location, than by remaining where he has formerly been.

H. BLANCHARD.

NOTE.—After six years' experience in selling Wool at Kinderhook, I fully concur in the propriety of H. BLANCHARD's decision to change his location, and remove the Kinderhook Wool Depot business to the city of Hartford, believing that the interests of our former consignors will be promoted, by making more ready sales, and avoiding the delays consequent upon our location, and to a rigid adherence to the cash system.

T. M. BURT.

REFERENCES.

George Beach, Esq., President Phœnix Bank; H. A. Perkins, Esq., President Hartford Bank; Messrs. Day, Owen & Co., Merchants; Messrs. Day, Griswold & Co.. Merchants; Messrs. Collins & Brothers, Merchants, Hartford, Conn. Messrs. Hacker, Lea & Co., Merchants, Philadelphia; Messrs. Freeland, Stuart & Co.. Merchants, New-York; Dr. J. P. Beekman, President Bank Kinderhook, Kinderhook, N. Y.

May 1—m3t

BLACK HAWK.

THE original VERMONT BLACK HAWK will serve a limited number of mares the coming season at $100 each. Gentlemen wishing to secure the services of this horse, must send in their letters at once.

Good pasturing at 50 cents per week All accidents and escapes at the risk of the owner.

DAVID HILL,
March 1, 1855—m5t Bridport, Addison Co., Vt.

COPARTNERSHIP.

C. M. SAXTON, No. 152 Fulton Street, has this day associated with himself, as copartner in the PUBLISHING BUSINESS, AUGUSTUS O. MOORE.

The business will hereafter be conducted under the firm of C. M. SAXTON & CO.

New-York, February 21st, 1855.

NEW BOOKS.

C. M. SAXTON & CO.,

AGRICULTURAL BOOK PUBLISHERS,

No. 152 FULTON STREET, NEW-YORK, have in press:

I.

THE PRACTICAL LAND DRAINER;

Being a Treatise on Draining Land, in which the most approved systems of Drainage are explained, and their differences and comparative merits discussed; with full Directions for the Cutting and Making of Drainage, with Remarks upon the various Materials of which they may be composed. With many illustrations. By B. Munn, Landscape Gardener. Price 50 cents.

II.

The Practical Fruit, Flower, and Kitchen Gardener's Calendar.

By Patrick Neill. Edited by G. Emerson, M. D., Editor of "Johnson's Farmer's Encyclopedia." With Notes and Additions, by R. G. Pardee, Author of "Manual of the Strawberry Culture." With illustrations. Price, $1.25.

III.

DOWNING'S LANDSCAPE GARDENING.

C. M. SAXTON & Co., No. 152 Fulton street, have in press a new and elegant edition of a treatise on the Theory and Practice of

LANDSCAPE GARDENING,

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A. J. CONGDON,
May 3—w2m1t Lancaster, Coos Co., N. H.

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B. F. WICKES.
South Westerlo, Albany Co., May 10—w2tm1t*

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VOL. III. ALBANY, JULY, 1855. No. VII.

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A Few Words on Summer Fallows.

The two principal objects of summer fallowing are, to clean the land, and to convert, by the admission of light and air, and by the comminution of the particles of the soil, its inert matter into available food of plants. In light sandy soils, which admit the air readily at all times,—and in which consequently, there is but little dormant matter capable of speedy decomposition—a fallow is not followed by that increase of crops so observable on rich clay loams, which, without constant working, are impervious to the atmosphere. Farmers in old countries are well satisfied on this point, while with us every year seems to convince multitudes of its truth. We admit that sandy land produces better crops for a few years *when first tilled*, than clay land, and that summer fallowing on such lands is attended with better results for a few years than on heavy loams. But after the organic matter of these light soils is removed—as under a system of summer fallowing it soon will be—the increase of crops from this process is materially lessened. Summer fallowing on sandy soil, is *simply* accelerating the decomposition of organic matter and the disintegration of the mineral elements of plants in the soil, rendering them available, without increasing the quantity. On such soils, therefore, it must be considered an exhausting system of cultivation.

On aluminous soils the case is different. Most clays naturally contain an almost inexhaustible amount of the elements of plants, and the principal aim of the cultivator is to render these elements assimilable. Thorough pulverization enables him to do this to the best advantage; and we may question whether the heavy land farmer will ever be able to dispense altogether with summer fallows.

Clay land possesses the power of retaining the ammonia contained in the rain water which filters through it; while sandy soils possess this power only in a slight degree, if at all. When an underdrained, rich clay soil, is summer fallowed, therefore, not only is the food of plants locked up in it rendered available, but all the ammonia in the rain which falls during the year it is fallow, is retained for the use of the subsequent crop. If the rain which falls on an acre of land in a year contains 50 lbs. of ammonia, a good summer fallow, on such soil as we have supposed, would increase the next wheat crop ten bushels per acre, or in other words, it would supply as much ammonia as 3 cwt. of the best Peruvian guano.

On a sandy soil, especially one which has long been under such a system of tillage, little increase of fertility is gained by the decomposition and disintegration of inert matter—since such soils contain comparatively little inert food for plants—and but a small proportion of the ammonia of rain water is retained. So that, while the heavy land farmer is under the necessity of performing much more heavy work, and of raising fewer crops than his sandy soil neighbor, yet he is not necessitated to use so much manure, and reaps frequently in one crop as much profit as the other does in two. Each class of soils, however, has its advantages and disadvantages, and in Great Britain, since the extensive introduction of turnip culture, the light soils have been more profitable than the heavy soils which need summer fallowing.

Summer fallowing sandy soils is unwise; how, then, should they be cultivated? Sow them to clover, peas, beans, lentils, rape, &c., and either plow in these crops or feed them to cattle or sheep and return the manure. These plants take up the ammonia brought to the soil in rain water, and when plowed in or eaten on the land, the ammonia is retained just as it is on the clays. In this way, clover, &c., is to the light soils what the double silicates are to the clays—the retainer of ammonia for the use of the following wheat crop.

On medium soils—such as abound in Western New-York and Upper Canada—a blending of these two systems would appear judicious. This would be, growing as much clover, &c., as possible, eating a portion of it on the land, and breaking up about the last week in June, simply cultivating and harrowing it afterwards to keep it free of weeds and render it mellow. This practice is adopted to a great extent in Western New-York, and is found much better and cheaper than several plowings as in the old summer fallow system. Even on heavy clay land many intelligent farmers prefer turning under a crop of clover when in bloom in this way rather than to summer fallow proper. The clover keeps the land light, and the gases generated during its decomposition, serve both to enrich and ameliorate the soil. How far this practice is capable of superseding the old summer fallow, experience only can decide. English experience is against it; but our cold winters and hot summers, and above all the westerly winds which so constantly prevail, and which so astonish Europeans in licking up moisture, render the pulverization of the soil in this country a comparatively easy task, and enable us to dispense with very much of the labor necessary on European, and especially on British farms. And we may here say that such are the differences of climate that we are quite satisfied that no English system of rotation or of tillage is applicable to this country, and that the only advantage to be expected from the experience of our trans-Atlantic cousins—admitting, as we must, that they are are the best farmers in the world—is from studying the *principles* on which their systems are founded; and thus while we may not be able to grow their turnips and vetches, and are not, perhaps, under the necessity of adopting their long or summer fallow, we may build up a system of agriculture adapted to our different circumstances, and yet having for its foundation the same great laws which govern the processes sanctioned by their long experience.

One of the great wants of our system of rotation is a fallow crop. A crop, which, while it impoverishes the soil but little, permits the free use of the cultivator and hoe during summer. A crop that shall be to us what the turnip is to English farmers. A crop in a word, that shall enable us to clean our land as well as though it was summer fallowed, that furnishes a large amount of nutritious food, and which, when consumed on the farm and the manure made from it returned to the soil, shall *leave the land rich* in ammonia for the use of the following cereal crops. Indian corn admirably answers the two first requisites, but we fear it consumes or destroys as much ammonia as wheat, and that, therefore, it is not a true fallow crop. Beans come nearer our requirements than any other crop we are acquainted with, and it is surprising that they are not more extensively grown on all wheat farms.

◆

To Keep Bugs from Vines.

LUTHER TUCKER, Esq.—For the benefit of your numerous subscribers, I will send you what I have found to be the best method to keep tho yellow striped bugs from vines. I have used it for more than 30 years, and never have known it to fail.

Take the feathers from a hen's wing, and dip them in spirits of turpentine, and stick one or two in a hill, and after every shower they will want to be dipped over again. HOWARD SAYRE. *East Thetford, Vt.*

Culture of Cabbage and Root Crops.

EDS. CO. GENTLEMAN—I have been hoping for a rainy day for several weeks, that thus an opportunity might be afforded for finishing my statement of modes of cultivation of crops, &c. After the labors of the day I find myself too weary to write evenings, or even to read with much profit. But the rainy day has come at length—a cold rain, but much needed in this region, and it will be of much service, particularly to the grass, which for two weeks has grown but little by reason of the dry cold winds which have prevailed, rendering the surface of the earth very dry and hard.

Cabbages, last year, were next in importance with me to potatoes. Those for early use, I started in the hot-bed. Early York and Ox Heart are the kinds which I prefer. For later cabbages I sowed Early St. Dennis Drum Head, and for winter use Premium Flat Dutch, mixing the seed with carrots, and sowing the middle of May. The ground for early plants, was prepared by plowing in deep a heavy coat of stable manure, and then harrowing in three or four hundred pounds of Guano to the acre. The plants started well, but the little black bug soon destroyed 1000 of them. Ashes and gypsum, sifted on the plants when wet, seemed to check the bug, and probably saved a portion of the plants. Those which were not destroyed, recovered and did well. I did not however perceive any benefit from the Guano, as in places where I did not use it, the crop was quite as good as where it was employed.

My middle crop—Early St. Dennis Drum Head—for some reason which I cannot explain, was an entire failure. I suppose however that the drouth came just in season to ruin them.

For the late cabbages, the ground was so wet that I could not plow it until quite late, and then there was so large a growth of weeds, that I could not plow it well with the manure first spread on. Therefore I plowed a furrow, and then scattered the manure plentifully in this furrow; then another, and so on through the whole, plowing as deep as possible with two horses. In this way I buried at a depth of seven or eight inches a good supply of green stable manure. The result was a fine crop, scarcely one plant in ten failing to produce a good head.

For early cabbages, I put the rows two feet apart, and the plants in the row, from one and a half to two feet. For late ones, the rows were two feet and a half asunder, and the plants in the row two feet. The latter I think were too thick. I shall this year make the rows three feet, and the distance in the rows two feet and a half. I plant with a dibble, and set the plants so deep as to leave nothing but the leaves above ground. This deep planting I find is essential. Ignorance of this one thing makes many long legged, light headed cabbages, as it did nearly all of the few which I attempted to raise formerly.

It is also important to hoe the plants frequently, but it is not necessary or desirable to "hill them up," as many suppose, when they are properly planted. The secret of raising good cabbages, after two years experience, I now believe to be, *heavy manuring* (no matter how green the manure,) *deep plowing*, *deep planting*, and *clean culture*.

I started last year with 8000 plants, and wtih a partial failure of the first crop, and an entire failure of the second, raised about 4000 heads. The land occupied was five-eighths of an acre.

Of carrots I raised only four rods. The ground was trenched the previous fall, two feet deep, with the spade, with eight horse cart loads of good compost. In the spring it was again dug with the fork one foot deep, and strawberries planted in rows five feet apart with carrots on beds between. With the seed I sowed superphosphate of lime, 400 lbs. to the acre. I had 40 bushels of very handsome carrots, which is at the rate of 1600 bushels per acre. The result was so good, that I dug last fall in the same way twice the quantity of ground, which should have been ten times as much except for the want of capital. I hope to double the quantity yearly in the future, for several years. I am confident it will pay.

Of sugar beets, I sowed one fourth of an acre, plowin 15 loads of compost, and sowing in drills 2 feet apart, using ashes and plaster in the drill, and cultivating entirely with the hoe. One hundred and twenty bushels was the result. They were sowed too late, by reason of the wet in May, which prevented plowing till about the first of June.

Mangel wurzel are with me a better crop, much easier raised, yielding double the quantity, and being nearly as good for feeding. I sowed of these one-eighth of an acre, in drills three feet apart, using phosphate or lime, having previously manured with eight loads of compost. The seed did not all grow, but I had 125 bushels—or 1000 bushels per acre.

I sowed three kinds of turnips—long white, flat white, and Russia. The first, after peas and potatoes, using compost of hog manure and muck. The second, among pole beans which had nearly failed, using guano and the cultivator. The third, on land which had been plowed twice and well manured, harrowing in phosphate of lime, 200 lbs. to the acre. All were sowed broadcast, during the first two weeks in August. It was very dry, and much of the seed did not come up; of the Russias not more than one-third. There was scarcely any appearance of growth until after the rain, about the middle of September; but I had a good crop in each case. The white flat were very handsome, but heat and rotted badly in the cellar. Whether the guano had any thing to do with this, I am not sure. The Russias were put in at the same time side by side, and kept well. They were fine, noble roots, many of them 6 to 8 inches in diameter, growing mostly after the middle of September—90 bushels on one-eighth of an acre. These turnips keep well through the winter, and are good for the table now. These and mangel wurzel are, in my judgment, the most profitable roots for the farmer to raise for feeding. Carrots I presume, are better for horses and for making butter, but the others can be raised with half the labor, and for making milk and general feeding, they are more than half as valuable. Indeed for making milk I think the mangel wurzel nearly as good as carrots.

For corn fodder I have tried three methods of sowing—broadcast, in drills, and in the furrow, following a small plow, and turning the next furrow over the seed, having plowed deep and manured previously. I like the last mode the best, I get as large a crop as by the drill process, and with less labor.

My letter is becoming so long as, I fear, to weary both you and your readers. I will therefore omit the other vegetables. Permit me, however, to say that I am now plowing with two horses abreast, 10 inches deep, land which I subsoiled two years since, and upon which the foregoing crops were raised, and that I find it evidently improved. I only want plenty of good compost and a plow and team that would do the work of the spade, or capital to employ the spade itself, in order to give me a good soil from one to two feet deep. When this is once done, I shall have no great fear of drouth or "bad luck." My carrots did not suffer in the least last year. But I must stop. J. S. W. *New Britain*, *Conn.*, *May* 9, 1855.

We thank J. S. W. for the above, as well as for his previous communications to this journal, and we hope he will continue to furnish us with his experiences in farming, as we are sure they will prove profitable to our readers.

Plowing Deep and Shallow.

Messrs. Editors—I have thought that I would give you some of my observations and experiences in farming matters, as I have always lived upon a farm and had the management of one since I was fifteen years old, or for thirty-five years. During that time I have been a constant reader of agricultural papers, and other works upon the same subject. I believe that I have been a subscriber to *The Cultivator* from its commencement until the establishment of your valuable weekly, *The Country Gentleman*, (since which time I have taken that,) and I have derived hundreds of dollars from its information and suggestions to aid my own experience But there is much that I cannot follow, advocated in those papers, for any practical farmer must see that no plan of farming can be written to suit all parts of this state alone, much more this nation. I think a farmer should not only be an experimenter, and an observer, but also a thinker, and should cultivate the same in his children and those in his employ. My mode to make my boys think, is to call attention to facts, and ask their opinions, and to compare opinions together. For example, to observe at time of harvest, the difference produced upon the crops by deep and shallow plowing,—difference of soil, &c.,—and ask, where is the cause?

My farm has much side-hill. Sometimes I plow up and down the hill, sometimes otherwise, and before we used the wheel under the plow-beam, there would be much difference in the depth of the furrows that were made going up and down, the deepest being those that were plowed going down. The lands were wide enough, (60 to 75 ft.) to divide the field in observable strips alternately plowed at different depths, and at harvest we almost always observed that there would be marked differences in the looks and stand of the grain upon these strips, where soil and all were alike, save the depth it had been plowed. The *best* wheat, oats and corn, were nearly always found where the land was plowed *shallowest.*

This is at variance with the principles laid down and advocated in all agricultural journals, and the man who writes for them must always say—"plow deep, plow *deep*,—the deeper the better."

Now Messrs. Editors, as a practical farmer, and an admirer of *good* farming, I will express my opinion, and allow me to differ from this wholesale notion of *always* plowing deep. I base this different conclusion upon multitudes of *facts*, "and facts are stubborn things."

I have seen twenty bushels of shelled corn more, raised on an acre plowed four inches deep, than on an adjoining acre plowed seven or eight deep. This was in the same field, the soil precisely alike, a coarse sandy gravel with many small stones; and had been tilled alike for 20 or 30 years; it was plowed the same week, the corn of the same kind, planted the same time, and the after cultivation all the same, the *only* difference being in the depth of the previous plowing. The corn was planted in rows about three and one half feet each way, and was plowed twice, and slightly hoed after the first plowing. The first plowing *from* the hills, two furrows between the rows; the second plowing *to* the hills, plowed as deep as possible, using two horses, driven one ahead of the other.

Another case. In 1821, Mr. H., the man who tilled the above piece, came to live with me. I was plowing for corn, in the spring, and had one half the field plowed over six inches deep. He told me it was "*too deep for corn*," and as he was an old man and I a boy, I listened to his advice. He plowed the remainder of the field three to three and a half inches deep. The corn was planted 3½ ft. each way, harrowed twice after it was up; we could not plow it until it was quite large, the sod was so stiff and not rotted. We then plowed it twice from the hill, very deep, hoed it, and then plowed it twice to the hills very deep. The first plowing with an old fashioned "bull plow," with the mould-board taken off; the second and third time with a cast iron plow. The soil was all alike, a sandy loam with lime-stone in some places. It was a stiff timothy sod, and had been mowed two years.

The treatment of the whole field was the same, but during the summer which was a dry one, that which grew on the ground deepest plowed was the poorest, looked yellow, and sickly, and yielded from 12 to 15 bushels of shelled corn less per acre than that part plowed but half the depth. The average yield of the best half of the field was about 65 bushels of shelled corn per acre. This was in Duchess Co., in this state.

Since that time, 34 years, I have plowed my corn ground shallow, (sometimes but three inches deep,) save strips through fields for experiment, and have found always the same results. I commonly plant a clover sod. I cover it with my unfermented barn-yard manure, plow it under—plant 3½ feet each way, use the cultivator when the corn is small, plow once to the hill, *deep*, sometimes hoe, but not always if there are no weeds, and count an average yield of 50 bushels of shelled corn per acre, oftener more than less.

Those of my neighbors who plow shallow, before planting, and treat as I do, get larger crops than those who plow very deep. I shall have more to say upon this subject. HENRY BREWER. *Enfield, N. Y.*

The writer of the above, is an intelligent, observing and successful farmer—one whose statement of facts may be relied upon. He shows, what we have often endeavored to impress upon our readers, that the farmer should not blindly adopt all the practices he sees recommended in agricultural journals, but that he should in every instance be an accurate experimenter, and carefully test all the different modes of culture recommended, which commend themselves to his judgment, and adopt only such as he finds best adapted to his farm and circumstances.

Jarring the only Remedy for the Curculio.

MESSRS. EDITORS—Finding it impossible to grow plums without some special remedy to prevent the depredations of the curculio,—not to instruct or publish any thing new, but to show what can and what cannot be depended upon as a safe course, I give my experience with that insect for a few years past. Among all the remedies heretofore published, only one has secured the design intended. I do not say that most or any of them are "humbugs," but that the curculio is a "hum-bug" in spite of them. I have tested, and I think fairly, lime, ashes, plaster, sulphur, cotton—all without avail. I do not doubt the sincerity of those giving the above remedies, but think they must have been deceived—that the curculio was not there at all, or in numbers so small as not seriously to effect damage. It requires but little observation to convince any one that insects of all descriptions migrate from place to place, overrunning one vicinity and vacating another of close proximity, or even one or more trees of a garden while others are not infested at all. I know not what Mr. Mathews has, or what else may be discovered, but so far with me *jarring* is the only remedy that has had the desired effect. Either the curculio here is not so sensitive or not so well behaved as in other places, for he seems determined to yield to nothing but death. Therefore I would advise those who wish to be sure of their plums, to commence as soon as they are fairly set, jarring on to sheets, and killing, once a day (at noon) for two weeks. This has with me secured a bountiful crop.

It has been asserted with confidence, that the curculio could not fly into a tree, but always crawled up the body of the tree—hence the cotton remedy. If any one will take the trouble to raise the shell on the back with the point of a knife, he can dicover a silken wing nearly three-eighths of an inch, folded up, making a full grown insect three-fourths of an inch when the wings are spread, with which he can readily show that he is not obliged always to walk with that appendage on his back. I have seen them rise more than 50 feet in the air at an altitude of 60 or 70 degrees.

In my communication on successful plum growing, your printer made me say, instead of the *past* season, my trees bearing the first season from 1 to 2 bushels each, which is an impossibility. C. S. *Shelburne, Mass.*

Answers to Inquiries about Mules.

Mr. Tucker—In answer to your correspondents, Messrs. Wynkoop and Many Farmers, I will give my views on the subject—1st. Let us inquire what are mules? They are a cross of the ass with the common horse. For what is the ass celebrated? 1st. Great powers of enduring fatigue of all kind, on the coarsest of fare—2d. Less liability to the various diseases and ailments that horse-flesh is heir to. For what is the horse celebrated? For large size, beauty, strength, kindness, tractableness, speed, and a greater degree of intelligence than any other animal for general use, we have in this country. Mules then must, of necessity, have these qualities united, although in a less degree than in either of the originals. This then brings us back to the first point of inquiry. What are mules? A mule is an animal varying from thirteen to seventeen hands in height, of great strength, and good disposition, capable of enduring the extreme heat of our short dry summers without injury. The heaves, ring-bones, spavins—in fact disease and blemishes of any kind are seldom seen. They can be raised as cheap and easily as calves—are gathered up by the eastern dealers for market at two years old, and, at the same time bear higher prices than the class of horses sold for all work—are not unruly; on the contrary, quiet and peaceful. I have seen as many as forty or fifty mules and horses turned together, without showing any disposition to quarrel. They have been used on the canals of this state, but are not so well liked as the horses, which I think is owing to the confinement in the narrow stalls, for it is as natural for a mule to roll as for a hen to scratch or a hog to sound the depths of a mud hole. Having stated these facts I leave your inquirers to deduce their own conclusions. Jones.

Messrs. Editors—I notice in the "Country Gentleman," of the 26th April, an inquiry about mules, as to their adaptation to farm work, &c. I have been working with mules, jacks, and jennets for several years, and have broke a good many mules to work—have worked them myself, and can say truly that they are far superior to the horse as regards all kinds of farm work. They are certainly not so comely as the horse in appearance; yet they are more hardy, can do more work, stand the heat better, and pull just as much if not more. Mules are less liable to disease than horses, and will eat almost every kind of rough fodder in the winter season; in fact they prefer it. The medium size, or as we say here, the second rate mules, are much better for farm work than the largest or first rate; they have much more life about them, and handle themselves more lively in every way; besides they cost much less and can live on less food.

Your contributor wishes to know "why they are not more worked than they are." The reason they are not more worked in Kentucky, is because it is more profitable to work mares, (not horses.) Several farmers around here breed twenty mares or more to the jack every year. From this number they can count on having fifteen colts, which are, (or have heretofore been,) worth at weaning time, an average price of about seventy dollars, making in all $1050. The mares that miss bringing colts can do all the rough spring plowing, and those with mules following, can be worked in the crop. A well broke mule has no bad habits, not more so than the horse. But if you could see the Kentuckians breaking them, you would feel sorry, even for a mule; a noose is thrown over his head; he is then choked down, a halter put on him, and he is then learned to lead, by some pulling and others beating; before he is half broke to lead, the harness is put on, and he is fastened by the side of a large gentle horse; he is then started off, and if he does not go, the horse drags him a few rounds, and he is very apt to get down to his work. He is then worked on, all the time, knowing no rest; scarcely the Sabbath is allowed, for if any of the colored population should want a horse to ride five or six miles, he must have the mule, as the work horses are tired and must rest until Monday.

Mules never become vicious or unruly by remaining idle, as horses are apt to do, for when once broke, they remain so. I have never had any difficulty in pasturing mules with horses. If kept within bounds while young, (after weaned,) they are no more apt to jump than horses. But if mules are put in a lot inclosed with a fence two rails high, you may add a rail every day; and will hardly build it high enough in a month, to keep them in; and this is also the way with horses. A farmer that would not wish to keep more horses or mares than can do his farm work, would undoubtedly find it more profitable to work mules than horses.

As to raising mules or horses for market, there is scarcely any comparison, as far as profit is concerned. A good brood mare, in four years will produce four mule colts each of which you sell in September for seventy dollars, amounting at the end of four years to $280, half of which would buy a four years old horse; moreover you dispose of them before winter. Perrine. *Mt. Ida, Ky.*

Penn. State Ag. Society.—At a recent meeting of the Executive Committee of the Penn. State Ag. Society, the proposition to hold the next fair at or near Philadelphia, in connection with the United States Agricultural Society, was negatived by a large majority. The Fair is to be held at Harrisburg, and the Hon. Frederick Watts, we understand, has accepted the invitation to deliver the annual address.

The Muck Lands of Orange.

The far-famed Chester meadows, are in two divisions, the upper and lower, with the village lying between on a gentle swell—the former called Black-Meadow, the latter, Grey-Court. The lower tract is the largest, and in some places of great depth, varying from sixty feet on the western shore where the Erie Rail Road crosses, down to a few inches on the eastern, while the upper one is more uniform, being in no place more than ten feet. The whole contains not far from 3,000 acres, about one third of which is under cultivation, and the rest in pasture and mowing. Every year is adding to the importance of these turfy deposits, and bringing more and more under tillage; and when the two outlets are properly and sufficiently lowered, here will be a tract of land almost unsurpassed in value, being only sixty miles from New-York, near enough to ship all sorts of vegetables perfectly fresh to market every day. Potatoes, carrots, parsnips, beets, turnips, celery, and cabbage are successfully cultivated, and the onion grows in such perfection and yields so abundantly, that to look at a field of them would bring tears in the eyes of a Wethersfield Yankee.

My object in this and future articles, is to bring to the notice of owners of this class of soils, their value, and the importance of a better system of management than most of them have adopted, and also to call the attention of the readers of the Country Gentleman to the subject, and ask those who possess such lands, to give us their methods of cultivation. I shall begin at what I consider the very foundation of good husbandry, and give my experience in draining, manuring, and tillage.

Whether it is necessary and profitable to drain a sand bank or gravelly knoll, as some visionaries affirm, or not, this much is certain, that for successful cultivation of peat soils, thorough draining is indispensible. Such soils, in their natural state, hold vast quantities of water which prevents sufficient decomposition for supporting useful vegetation, and also contain various acids injurious to plants, which can only be expelled by draining out the water, so that decomposition can go on until the crude vegetable matter has become fit for food for plants. It is well known that brush and straw, when buried in earth, deep enough to be always moist, do not undergo decomposition, except in the smallest appreciable degree. It is utterly impossible to raise a paying crop upon any soil saturated with water, and there are a great many farmers who undertake to cultivate bog meadow, who labor hard and long, and get a miserable return, because their laud is only half drained. Their crops are stunted, while the weeds flourish like the green bay tree, and utterly refuse to die. Draining should be scientifically done. The lowest convenient place should be selected, not by the eye but by the level, for an outlet, and the land divided into narrow fields, or what is better, into large ones and under-drained at intervals. The underdrains can be made with tile laid on boards to keep them from sinking in the soft muck; or they can be made of brush. Where the ditches are down to hard ground, they can be partly filled with pebble stone which answer first rate.

There is another mode, which I have practiced considerably, and which I think preferable in deep soils. They are made of the turf taken out of the ditch, and are cheap and durable. The manner of construction is as follows. Cut your ditch, say two feet wide at top, with one perpendicular side. Whenever you reach good solid turf, cut it out in square blocks large enough to fit the bottom of your drain, and lay them on the perpendicular side and throw all the other dirt on the other side. When your ditch is low enough, say three feet, cut out a place for the water to run, under the straight side, with an instrument made for the purpose (or it can be done with the shovel,) and then place your square blocks in the bottom, fill up your ditch, and you have a drain that will last your life time. At the ends there should be something to keep the turf, which is made fine by frost, from stopping up the mouth, and also to prevent the musk-rat from getting in your drain. Three strips of boards, three inches wide, nailed together, will answer both purposes. Twenty five cents a rod will cover the whole cost of this drain, and every rod made will diminish the expense of cultivation and add to your crop. J. *Chester, N. Y.*

The Oat Crop.

It is a very common opinion that oats is one of the most exhausting of all grain crops. One of the best farmers of Western New-York, informed us that he never permitted this crop on any portion of his farm devoted to wheat or other grain, but only on land otherwise exclusively used for meadow and pasture. Another skilful farmer never raised the crop at all, preferring to *buy* all that he might need.

We have just conversed on this subject with T. A. Slocum, an enterprising and successful farmer of Perrinton, Monroe Co. N. Y., who entertains quite a different opinion. He has cultivated the crop for many years past on a large scale, and regards it as one of the least exhausting. For the past six years, he has raised from forty to seventy acres. During this period a part of his land has been cropped with it every year, and with a single exception, without any diminution in the amount. This annually-cropped ground has *averaged* for these six years, sixty bushels per acre, including last year, when, by the unprecedented drouht, it was reduced to fifty bushels per acre. The land, throughout this period, has *netted* him (above all expenses) twelve dollars per acre, as an annual average.

Our readers will doubtless feel interested to learn his mode of management. After the crop is harvested, he passes a spring-tooth horse-rake both ways across the field, for securing all the gleanings; but, as he observed, this kind of rake having a sort of "baby jumper motion" over the field, a considerable portion of the grain is shelled out from the gleanings, and partly harrowed in by the points of the rake. A thorough harrowing afterwards, insures a good growth of oats, which is about a foot high before winter. Before the ground freezes, the whole is turned under with the plow, in the most thorough manner—serving as a good green manuring.

Early the following spring, the surface is rendered mellow by means of the harrow and two-horse cultivator, and the crop sown, seven pecks to the acre, by means of a grain-drill.

There is no doubt that the annual green manuring assists in keeping up the fertility of the soil; and there may be some kinds of soil including this, that will long bear heavy cropping with oats. It may be questioned however, whether it is good *permanent* policy to pursue this course instead of a more varied rotation. When we have a strong fertile soil, we prefer to *keep* it so, to its fullest capacity, rather than to draw too hard upon it, as even the strongest may ultimately fail. But cultivators of the oat crop, may however derive some excellent suggestions from the practice detailed above.

Experiments with Salt.

Several years since I sowed a field with barley—soil a marly loam, located on what geologists denominate gypseous shales. Soon after the barley came up, three bushels per acre of salt were sown on two thirds of the field, leaving one third in the center unsalted. The straw of the barley that season generally rusted. Where salt was sown on this field, the straw was bright—where none was sown, the straw was rusty. The crop was best where salt was sown.

In the fall, the field was sown with wheat and harrowed, when three bushels of salt per acre was sown on the *whole* field. The wheat was nearly ruined by the midge, erroneously called weevil.

In the spring previous to harvesting the wheat, the field was thickly seeded with timothy and a slight sprinkling of clover. For three successive years this field was mown, each year producing not less than three tons of hay per acre. The growth of grass was so large and fine as to attract great attention, some observing farmers saying they had never before seen so good. The grass was largest and best on those parts of the field which had received *two* dressings of salt.

In the spring following the last mowing, this field was plowed once, and planted with corn, which at no time appeared promising, and gave less than an ordinary yield per acre.

So far I have given facts. I will now give my opinions, made up from observing the results of those facts.

The barley was benefited by the use of salt. The wheat showed no effect from the salt, though perhaps it would, but all had been salted, though two-thirds had received 6 bushels, and one-third but three bushels per acre.

The grass was best where most salt had been sown, and was more benefited by the salt than was the barley. The corn was poor, and whether the cause was exhaustion of the soil by taking three unusually large crops of timothy hay, or the effects of the salt, or both, I cannot say; but as timothy, when taken off in hay is an exhausting crop, and salt has a tendency to make the earth moist and consequently cold, I think both were injurious to the corn. The crop of barley which followed the corn, was good, showing no difference between the parts where three bushels or six bushels of salt per acre had been used.

If others have used salt on land, I would like to have them give a detailed statement of the application and effects, through the medium of the Country Gentleman. E. Marks. *Camillus, Onondaga Co., N. Y.*

Practical Farming.

Now a word on oats. Formerly I raised oats but once in my rotation, that was after corn, now I sow an additional field. I turn up a clover field, sow with oats, follow with wheat and seed again with clover, at the rate of 15 lbs. seed per acre, (never less.) By this means I get a better stand of clover, than when I plow a clover stubble in the fall. Sow with wheat, and then seed with clover again. I attribute much of my success in farming to always having a luxuriant growth of clover on my warm, dry, gravelly soil. It makes no sod and is fit for any crop by once plowing, provided you do not plow too deep.

A few words on subsoiling. I experimented in a number of my fields, subsoiling portions of each, and I could see no benefit, save in one case. That was a small piece, say one acre or more. It was originally very wet; I drained it through both ways, but the water would stand upon the surface within a few feet of the drain, for several days after rains, and also until late in the spring. It baffled all my skill for many years to get it seeded to grass. Both clover and timothy would grow for the first season, but would be entirely killed out in the winter and spring. In the spring of 1848, I subsoiled it sixteen inches deep. It dried very quick, and very hard, almost like a brick. I planted with potatoes, which amounted to nothing, as the ground remained hard until fall, when I plowed it again, six inches deep, not disturbing the subsoil

In the spring of 1849, I harrowed it down, planted again with potatoes, got a good crop, and the land has not failed of a good crop, of any kind tried on it since. The subsoil is a very hard clay mixed with gravel, which held the water; the surface soil has a little more sand. A crust seemed to have been formed beneath the surface soil, which the subsoil plow broke up, and since then the drains have kept it dry, I have noticed the same thing in other places on my farm, where I have drained swales, but in all these other cases, simple draining effected a cure. In the case cited, had I turned up much of this subsoil on the surface, with manure I might have raised a good summer crop, but my experience has told me that no good clover or winter wheat could be expected, without large quantities of manure to have mixed with it. I find that the deeper I plow the more manure I must use to get the same amount of crop; hence the necessity of having land well manured with clover and its roots. I would rather have a good clover sod for corn, without manure than the same in stubble ground with 20 loads of common barn-yard manure per acre. This is equally true for wheat, for the deep roots of the clover draw from the subsoil to the surface the materials required for these crops.

Clover should lay but one year. That is, if seeded in 55 with wheat, in 56 it may be mowed for hay,—pastured,—mowed twice, once for hay and once for seed; or else pastured until 10th of June, and then left for seed; then in either of these cases, in the fall it is in a good state to be plowed for wheat; about 4 inches deep is the best, so that the large clover roots are near the surface in an available place for the young growing wheat; or else it may be plowed the next spring for corn or oats; in either case this summer crop to be followed by wheat, and seeded again. I always seed with clover along with wheat.

Clover is my mainspring, for when that fails, then my other crops fail.

I make no compost heaps, but use all my barn-yard manure, in the spring, mostly on my corn ground. The most of it is under shelter, and I do not want it to heat before it is drawn out; then I plow it under to rot there.

I would like to give you my views on some other subjects, but I have already been more lengthy than I anticipated. You can make such use of my experience as you see fit. Henry Brewer. *Enfield, N. Y.*

The Chilian Guano Fraud.

The *Southern Farmer*, an excellent agricultural paper published at Petersburg, Va, copies our article on Chilian guano, and remarks as follows:

In copying the article on the manufacture of Chilian guano from the *Country Gentleman*, which will be found in another column, it may not be improper to make a few remarks, as the names of the editors of this paper are introduced in it, as is that also of one of the most respectable and honorable mercantile houses of this city. When Messrs. Rowlett & Hardy were told that the Chilian guano was a fraudulent article, no men could have been more astonished and, indeed, incredulous than they were. They stated they had received it from a house in Boston which had been highly recommended to them by a gentleman in whom they had full confidence, and that it was accompanied by the analyses of eminent chemists. They, however, immediately declined selling it to their customers as a genuine article, though not without some doubts as to the correctness of the opinion we had pronounced upon it. It will be seen, now, that our opinion has been abundantly confirmed, and that the Chilian guano, instead of being a natural deposit, is neither more nor less than a fraudulent compound, manufactured somewhere in the vicinity of New-York, and composed of ingredients of very little value. By the admixture of a small quantity of Peruvian guano and the addition of some water, the action of the carbonate of lime or chalk tends to expel the ammonia, and consequently a very pungent odor is emitted, very well calculated to deceive the inexperienced. The presence of lime may be readily detected by any person who will take the trouble to pour a little acid upon it, for an active effervescence immediately takes place, which is not the case with Peruvian guano even when the most powerful acids are applied. As a further proof of the worthlessness of this Chilian guano, we understand from the Superintendent of the Model Farm that not the slightest effect is observable on the oats to which it was applied, even in large quantities, while the action of Peruvian guano and De Burg's superphosphate of lime is very striking.

The Use of Snow.

The past severe winter, in its effects on plants, has furnished some striking proofs of the protection afforded by snow. Several specimens of the *tree box*, some of them seven or eight feet high, are as brown as dead grass above the snow-line; while all below is as green as emerald. The Japan Quince, usually regarded as very hardy, although not destroyed by the extreme cold, was so injured and checked in its growth, that while the flowers below the snow are an inch and a half in diameter, and in dense and brilliant clusters, the exposed portion of the shrub is thinly furnished with pale red or pink flowers, not one fifth the size of the former. The only blossoms of the peach that have appeared, have been a few that were covered by snow drifts; and the strong contrast in the color of the wood of the trees, where exposed or protected, has been sufficient to show the precise depth of snow in any part of our peach orchards. Observations made at the Royal Gardens at Kew, in England, (where the winter has also been very severe,) showed a difference of *nineteen* degrees immediately above and below the snow.

Value of Corn for Soiling Cattle.

Mr. Tucker—I have just read Mr. Morse's valuable article on soiling cattle, and from the little experience I have had, I would advise every farmer to follow his example. I have prepared and planted for this purpose, a small piece of ground every spring for three or four years past, and fed it to my milch cows the latter part of summer, and now think it indispensible with me. I make the ground rich, and put it in drills, for we all know the benefit of stirring the soil around young corn—I also think the stalk and leaf contain more nutriment than when sown broadcast. I think too that farmers generally do not fully appreciate the worth of corn fodder for winter use, and the past long foddering season has been a good time to test its preference to hay for cattle, and especially for milch cows. I have just completed the assessment of personal property in this township, and in every instance where cattle had been kept on corn fodder, found them healthy and in good order, while those that had been fed hay alone, "I do not know the cause of my cattle being so poor, for I have given them plenty of good hay, shelter, &c.;" and in nearly every instance where I made inquiry and learned they had been kept upon corn stalks the fore part of winter, I found they did well till put upon hay. R. H. Mack.

Care of Horses, &c.—Is not the practice of going to supper and leaving a team meanwhile in the field, without any refreshment, both cruel and injurious? Should a horse or ox ever be worked more than 5 hours at a stretch? Does not colic very frequently take place from long fasting and the greedy stuffing which is apt to follow it? Has not the death of some animals been owing to long fasting and its usual concomitants?

A Summer Suggestion for City and Country.

In cities and villages there are many unwholesome and offensive odors from stables, styes and other sources which might be prevented or abated at no great expenditure of money or labor. On a warm day in summer a person fresh from pure country or sea breezes can detect a more or less contaminated atmosphere as soon as he enters the precints of a city. If this contamination can be detected in the cleaner portions of a city, some guess may be made at the virulence of it in those portions which are lowest and filthiest. There are streets in New-York the stench of which is nearly insufferable in a hot day; and though much more offensive localities might be named, no one who has had occasion to go through Mulberry, or Church, or Greenwich, or Pearl or Varick streets, or even West Broadway, can ever banish from his memory the unsavory and sickening odors which have saluted his nostrils on some sweltering day under the reign of the dog-star. Even the back-rooms of some residences pretty far up in Broadway, especially if in the near neighborhood of some livery stable, are far from having any very delectable odors or any very enviable immunity from mosquitoes, though their inhabitants may boast of living in a very genteel locality.

But not alone in cities, and where people most do congregate, are there offensive and undesirable odors to salute the nostrils, but also wherever there is a single family or a separate farm establishment they make some manifestation of their unwelcome presence. Wherever there is a stye or a stable there must be, of course, some most unwelcome smells. And one purpose, unquestionably, of certain odors having been made so very disagreeable is, that those annoyed by them should be stimulated and stirred up to use their ingenuity, their skill, their strength, or in a word, their mental and manual powers, in ridding themselves of the nuisance.

To those, either in city or country, who are suffering in the way we have referred to, we propose at this time to submit,—not a long lesson or treatise on deodorizing agents in general, but only—one brief hint as to *one way* which may be employed either in city or country to neutralize or correct the odors of stable, vault or stye, which are felt by every one to be offensive. Where adding to the value of a manure is an object fully as important as the getting rid of an offensive smell, then an application of swamp muck previously exposed to summer heat and winter cold, or of plaster, or of charcoal dust, or of loamy soil, will be preferable to the plan herewith proposed; but where the getting rid of an offensive odor is the principal object, then the method followed in the statement which follows, is one which may be copied at as little expense and with as little inconvenience as any other. Sulphuric acid diluted with a considerable quantity of water might be as cheap an application, and as effectual, but there would be some risk of burning or injuring person or clothes, at least with careless persons, and on this account the sulphate of iron application, the account of which we subjoin, is on the whole, preferable.

"Mr. Robert Austin, of 65 George St., Manchester, (England) informed the Council that upward of a ton of horse-dung was produced in his stables daily, and that the usual offensive odor and evaporation from it were entirely prevented, by sprinkling over the dung-heap, by means of an ordinary watering can, a solution of a pound of common green copperas in a gallon of water. The value of this chemical agent in fixing ammonia and strengthening manure, had been long known, but Mr. Austin's practical application might be considered simple, effective, and easily adopted in similar cases."

To this statement, taken from the *Farmer's Magazine*, we would only add that in most cases where a considerable bulk or surface is to be sprinkled, more than a gallon of water might be advantageously used for each pound of copperas.

Household Matters.

Churning.—In churning butter, if small granules of butter appear which do not "gather," throw in a lump of butter, and it will form a nucleus, and the butter will "come."

To Remove Rust from Knives, &c.—Cover the knives with sweet oil well rubbed on,and after two days, take a lump of fresh lime, and rub till all the rust disappears. It forms a sort of soap with the oil, which carries off all the rust.

To Clean Brass.—Rub the tarnished or rusted brass, by means of a cloth or sponge, with diluted acid, such as the sulphuric, or even with strong vinegar. Afterwards wash it with hot water to remove the acid, and finish with dry whiting.

Gloss on Linen.—To restore the gloss commonly observed on newly purchased collars and shirt bosoms, add a spoonful of gum-arabic water to a pint of the starch as usually made for this purpose. Two ounces of clear gum-arabic may be dissolved in a pint of water, and after standing over night, may be racked off, and kept in a bottle ready for use.

To Thaw Frozen Pumps.—Some throw in salt, some heat iron rods, &c. but an incomparably better way is to place a small lead pipe within the pump, and pour in hot water by means of a funnel. The pipe should be as long as the frozen portion; and, conducting the boiling water right on the ice, removes it with astonishing rapidity, say one foot per minute, the pipe settling as rapidly. Where pumps are liable to freeze, it is well to have a lead pipe always at hand.

Oiling Latches and Hinges.—Every person who lives in a house, should spend 15 minutes once every month in going over every part with a teaspoonful of oil and a feather, and give all the hinges, locks, and latches a touch. It will save an incredible amount of scraping, banging, jarring, squeaking, harsh grating, dismal creaking, and other divers and several noises, which result from the want of a little oil.

To Extract a Glass Stopple.—When the glass will not come out, pass a strip of woolen cloth around it, and then "see-saw" backwards and forwards, so that the friction may heat the bottle neck. This will cause it to expand, become larger than the stopple, and the latter will drop out, or may be easily withdrawn.

A tight screw may be easily loosened from a metal socket, by heating the latter by means of cloths with boiling water, or in any other way—on the simple principle of expansion by heat.

Cultivation of Flax.

Being at Little Falls, N. Y., a few days since, we visited the Flax factory of Messrs. Tucker & Johnson, and gathered a few items of information which may be interesting to some of our readers. These gentlemen have embarked in the flax business with much spirit and with ample capital; and though last year, from a variety of causes incident to a new enterprise, their profits were little—if not on the wrong side of the ledger—yet, with increased experience, they are satisfied that the cultivation of flax for fibre can be made a profitable business. If it pays the farmer to grow flax for the seed alone, surely it must be profitable when fibre and seed are both used. Nevertheless, the success of Messrs. Tucker & Johnson has not been such as to warrant any of those extravagant calculations which some writers have made in regard to the profits of flax culture.

Last year Messrs. T. & J. could obtain only about 300 acres of flax, and for this they paid the farmers $25 per acre, delivered in the barn. A ton to the acre is an average crop. This yields about 250 lbs. of flax, worth 12½ cents per lb., 75 lbs. of fine tow, worth 3½ cents per lb., and 75 lbs. of coarse tow, worth 1¼ cents per lb., and from 8 to 10 bushels of seed. *Twenty-five dollars per acre they find is more than they can afford to pay the farmers*, and this year they pay only $20 per acre. The soil in the immediate vicinity of Little Falls is not well adapted for flax, and its culture has been abandoned. It is now grown some 8 or 12 miles distant from the factory, principally in South Trenton and Middleville. About 450 acres have been sown in these towns this year. For 200 acres in Trenton, Messrs. T. & J. find the seed and pay the farmers $16 and $17 per acre for the entire crop, delivered in the barn. In some cases they find the seed and harvest the crop, paying the farmers for the use of the land, and for putting in the seed, $12 per acre. Under such circumstances, flax would seem to be a profitable crop for the farmer, but it appears that but few are found willing to engage in its cultivation. "Farmers are too rich in this neighborhood. They have fine dairy farms, and do not care to deviate from the regular routine of business. To cultivate flax with profit, you want to go where farmers are poor and glad to get hold of a little cash." With cheese at 10 cents per lb., butter at 30 cts., corn $1 per bushel, oats 70 cents, and other things in proportion, we are not surprised that farmers hesitate before embarking in a new enterprise.

The earlier flax is sown after the first of May the better is the fibre and the seed; and when sown early, drouth injures it but little. It does better on sward land turned under in the spring, immediately before sowing, than on land that has been plowed the previous year. It is particularly desirable that the land be clean and free from weeds. In Europe, much labor is expended in weeding the flax fields, but here on sward lands this is dispensed with entirely; indeed, if it was not so, with our high-priced labor, we should have to give up the idea of raising flax, for we believe, when sown in rows, in order that it might be hand or horse hoed, the fibre has proved to be of very inferior quality.

Last year Messrrs. T. & J. imported their flax seed from Riga. This year they use the Saplin and White Flax, with only a little Riga. It is sown broadcast at the rate of five pecks per acre. They are trying some this year at the rate of two bushels per acre. In England, we believe they sow as much as 2½ bushels on poor land, and 3 bushels on rich land, and we have seen 4 bushels recommended; but the English seed heavier than we do with anything.

The flax is ready to pull about the first of August. It is a nice point to determine just the right time. If pulled too early, or suffered to stand too long, the fibre is injured. It should be pulled when the seed in the bolls is beginning to change from a green to a pale brown color, and the stalk becomes yellow for about two-thirds of its height from the ground In pulling, it is necessary to clean the flax from all weeds, to pull it when perfectly dry, to keep the root ends even, and tie it up in small sheaves and stooks, and not harvest it till it is thoroughly dry. The seed is removed by a simple process, and then the flax is spread out on the ground to rot, from the first of September till snow comes. Messrs. T. & J. have machines for dressing the flax which cost $1950, but which they have laid aside, and now use the old-fashioned revolving wooden knives. They are however about introducing an apparatus for rotting and dressing the flax by steam which will materially facilitate these tedious operations.

Our readers can compare the above facts with an English statement of the value of a flax crop : "The value of a crop of flax, *standing in the field*, is from $40 to $60 per acre—the purchaser to pull the flax. The yield of flax will vary from 30 cwt. to 40 cwt.; the produce of seed about sixteen bushels. The price of the flax after threshing out the seed, $14 to $15 per ton."

Guano and Superphosphate of Lime.

I have used some guano and superphosphate of lime the past two seasons. In 1853, superphosphate was of no perceptible benefit to my carrots. It was sown in the drill with the seed, on moist ground. A kind of weed which we call *barn* grass, was much ranker on the drills where superphosphate was put, than on others. Last season, I put a six quart pailful of superphosphate with the seed of two rows of carrots, each of about 20 rods in length. The gain of one row as compared with a row alongside, was about one half bushel. I was not satisfied that there was any gain in the other. To the eye, there was no perceptible difference at any stage of the growth. Parallel with these rows of carrots, was a row of corn on similar soil, to appearance, treated with superphosphate, which appeared much better than corn on guano in rows alongside of it, through the season, and yielded better at harvest time. The result was similar on other moist soil, but not so on that which was dry, except early in the season as to growth. *Corn yielded best from guano on dry soils with me.* H. *Hancock, N. H.*

Thomas Gould's Farmery.

A barn was formerly considered an unsightly object, to be shut out of sight from a neat residence, by distance, or by close planting with trees. We are glad to say that some farmers have made the discovery that a barn may be as neat in appearance, in its own way, as a dwelling house; and that a country residence has an *incomplete* and lonely aspect, without the comfortable appendages of well arranged farm buildings, kept in neat and cleanly condition, enlivened by various well-fed domestic animals, and embellished with a due proportion of shade trees.

One of the most neatly appearing collections of farm buildings we have lately seen, is that of THOMAS GOULD, near Aurora, Cayuga county, N. Y., recently erected. It consists of ranges for poultry, rabbits, &c., as well as for horses, cattle and swine, and is built in a neat and substantial manner. The exterior is boarded vertically, battened, and painted light brown. The stables are so constructed that the liquid manure is carried off in troughs to a large tank built of masonry and with water-lime, and covered with a roof. The solid manure being also thrown directly from a portion of the stables into this tank, preserves it from freezing in winter, and consequently prevents the water-lime coating from cracking and scaling off with the frost. The reservoir being shut tight, preserves the contents from evaporation, and the manure is kept thus of the richest characrer. We fear, however, that the want of circulation in the air will cause the roof timbers to decay, and would therefore prefer to depend on absorbents, such as loam, peat, leaves, chopped straw, &c The liquid manure was applied last summer to the garden, with great effect. The apartment for pigs has an alley or walk through the center, from which they are fed in the apartments on each side, the floor sloping towards the central walk, and their bedding lying most remote from it. This arrangment always insures a *dry bed* for them, all liquids from feeding or otherwise, immediately finding their way to the troughs for its escape, placed at the alley-partitions.

T. Gould has a fine collection of improved animals. His Black-hawk stallion "Hero," is well known, and is a most beautiful animal, and received a first premium at the State Fair at Saratoga. His Devon cattle are of an excellent quality. We observed about thirty handsome specimens of Madagascar rabbits. His other animals are not behind in quality.

An experiment was made last year, showing the value of a deep soil, which is well worthy of mention. Grass seed had been sown on three pieces of ground, alike in quality, but differently treated. One portion had been trenched two or three feet deep. Notwithstanding last summer's extraordinary drouth, a heavy crop of grass was cut three times during the season. Another portion had been spaded ten inches deep, and from this only two crops were cut, and both of them lighter. The third portion was sown with grass seed, with nothing but ordinary preparation, and the growth was so light that mowing was not attempted.

Summer-Stabled Horses.

Horses which have nothing but dry hay and grain all the year through, must suffer both in comfort and in condition. Like other domestic animals they relish variety in their food; and the tendency of such variety to improve the condition of animals has been so often noticed as to have passed into the common proverb—"Change of pasture makes fat calves."

Truths of this kind seem to be very generally forgotten by some of those who have occasion to keep their horses in the stable throughout the whole year. Many seem to forget or ignore the fact, that while dry hay and unbruised grain may be the handiest and least troublesome feed for their horses, these useful servants are thereby curtailed of comfort and prevented from enjoying that amount of good health and of ability to endure labor, which they might obtain by a somewhat different mode of feeding.

Various methods might be employed to secure some variety in the food of summer-stabled horses according to the varying circumstances of their owners. Roots, corn for soiling, grasses cut green, mashes, and other things might be occasionally introduced as agreeable and wholesome changes. At the present time, when hay and grain are so high, economy as well as the comfort of the horse might be consulted by some occasional change of food, and where nothing can conveniently be had but hay and grain, something desirable might be affected, both as regards expense and the health and comfort of horses, by cutting the hay quite fine and steaming it occasionally, and by grinding or bruising the grain. Hay cut and grain ground will go much farther than in the natural state. We *know* that a horse may be kept in *good* condition on a daily ration of three pecks of cut hay and four quarts of Indian meal; and if the yearly amount of such an allowance is calculated it will be found that it requires about a bushel of corn per week, or fifty-two bushels per year, and one ton of hay (which should be of the very best quality) for feeding a horse during a whole year. *This is economical;* and if boiling water should be poured over a part of the hay occasionally and the meal with a little salt added to it, it would give a variety and a degree of succulence to the otherwise dry feed, which would make it more relishing and wholesome.

We think this hint, if practically applied, will prove of service both to man and beast—both to horses and their owners. We may add here, being forgotten in its proper place, that horses will sometimes prefer boiled turnips or ruta bagas to raw ones, and meal will make them still more acceptable.

GREEN RYE FEED.—A correspondent of the *Germantown Telegraph* says:

"The season with us has been unusually backward for pasture; it has been our practice to sow *Rye* on the ground that we intend for potatoes the following season, well manured either with stable manure or guano, the latter of which I prefer for this ground. The rye sown last fall, *we have been mowing over three weeks*, and the result has been that we have had as much milk and of as good quality as could have been obtained from the best of pasture."

Wire Fences.

We inserted in a late number the inquiry of a correspondent relative to the latest and most reliable experiments with wire fences. Having had some experience for a few years past, and of a somewhat varied nature, we give the leading results, and would invite any thing further of a decided and practical character, from our correspondents.

1. The wire should not be smaller than No. 5 or 6, and care should be taken that it be not only well annealed before purchasing, but that it be of the very best and toughest material, *perfectly free from splinters and flaws*. Failures often result from a poor material and from wire of too small size.

2. Living trees, and not common posts, should serve for stretching the wires, at least at each end, and at several points between. It is next to impossible to secure artificial posts, so that the wire in a state of tension will not cause them to give way and finally to be drawn over. They may stand very stifly for a time, but by a constant pressure they will gradually give way. For the same reason, trees less than eight or ten inches in diameter at the ends, will not answer.

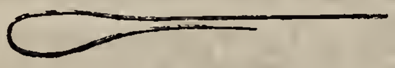
These are the two leading requisites for success.

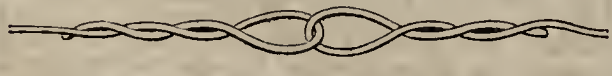
We lately constructed about 50 rods of wire fence, which from some previous experience, we are confident will last for many years with very little attention.

It is on the lower side of a piece of woodland, which descends towards a pasture, animals being allowed to run in the pasture but never in the woods. Hence there can be no danger of their dashing up the hill against the invisible wires—which under other circumstances are often broken by cattle at full speed.

The fence is not straight, but has considerable flexures in stretching from tree to tree. Where the space between is more than ten feet, the wires are kept to their places by being made to pass through holes made in small upright iron bars. The holes in these bars were punched at a machine shop, at 25 cents per 100 holes.

Holes are bored through the trees with a half inch auger near one side, and the ends of the wires fastened by loops through these holes; or as in the annexed figure. They also pass, occasionally, through holes in the intermediate trees: but are more frequently secured to the sides of the tree by staples, care being taken in this case that the tree is *within* the angle of the flexure and not without it, which prevents the wire from flying off from the tree. When splicing is required, the ends of the wire are looped together as in the annexed figure. The wire expanding and contracting by changes of temperature, the distance between the extreme posts should not be more than about fifteen rods, and the screws, which are furnished by agricultural warehouses, for this purpose, applied, one to each wire, for stiffoning or loosening twice in the year, as those changes may require.





The cost of this fence, with five No. 6 wires, and three sets of screws for the fifty rods, and including the cost of erection, was about 75 cents per rod. The wire was procured for about 6 cents per lb., the screws at fifty cents each, and the staples, manufactured and sold for this purpose, at a low rate.

We cannot recommend the wire fence for ordinary farm divisions, for the reasons already stated; but along the borders of woods, where trees may be used for stretching-posts, it answers the purpose well. On level ground, however, cattle would be more likely to strike it with force, than if they were compelled to climb an ascent against it, and for this reason wire as heavy as No. 4 or 5 should be used, making the cost about one dollar a rod. if well made.

Trapping Grubs and Cut Worms.

A writer over the signature of C. Q. in the May No. of the *Mich. Farmer*, relates his success in preventing the depredations of these pests of the farmer by a new and very ingenious invention of his own. As neither fall-plowing nor any other generally known method is much to be relied upon, probably many may be induced to try this newly proposed method. If found as successful as C. Q. represents it, we shall be happy to make a report thereof, and to be the organ through which those who may find it useful shall send a vote of thanks to the original inventor.

Last spring, says C. Q. "I tried an experiment with the "varmints," which I will relate for the benefit of whom it may concern." He planted his corn on a clover-sod plowed in spring. While planting he found plenty of the small grubs. The corn was planted about the 20th of May, and as soon as it came up they commenced their mischief. Knowing no reliable or certain way of saving the corn, he concluded to *trap* them. For this purpose he took a round stick, 3 or 4 ft. long and about 2 inches in diameter, and making one end sharp, and taking two rows at a time, he made from two to four holes, 4 or 5 inches deep in or close by every hill. After fixing several rows in this way he waited to see the result. On examination he found that almost every hole had one or more worms in it. In one hole he counted as many as six. He then went over the whole field in the same way, and the result was that hardly a hill of corn was destroyed after the holes were made, while his neighbor's corn just over the fence, which was on ground plowed very early, was more than half cut off with the worms. "It might be supposed," says C. Q. "that when the fellows fell into the traps they would bore into the side and escape; but on watching them I found they would try to climb up the side, but the sides being smooth they always fell back again, when about 24 hours of sunshine and starvation would put an end to them. They usually commit their depredations in the night, and while crawling around to find the corn they tumble in." An additional recommendation of this method is, that the birds will not pull up the corn, when they find plenty of *grub* already provided for them.

C. Q. states farther, that a portion of this field of corn looked green, and flourished luxuriantly, while another portion looked pale and yellow. To the former he had applied (a tablespoonful to each hill) a mixture of 2 parts lime with 3 parts of ashes. The latter had no such application.

Save the Bones from going to Waste.

There is, probably, not a farm-house in any region of country where this paper circulates, around which more than a dollar's worth of bones might not be picked up in the course of a year. Let some box, barrel or bin be set apart for the storing of every bone which can be picked up around the premises, and the amount collected will probably excite some surprise.

The bones thus collected may be used to much advantage as a fertilizer, in various modes of application. They might be used whole and unbroken if you were trenching or digging deep, either as a preparation for setting out grape vines or fruit trees, or for renovating either of these. The rootlets of the vines or of the trees usually find out such rich supplies of food, and old bones have been found, in such situations, encircled with a net-work of spongioles and rootlets. They will supply food for trees or grape-vines for a series of years, if used in this way, but will produce no very marked effect at first.

When a more immediate effect is wanted, and to secure a beneficial effect on the generality of crops, bones must be broken or pulverized. This may be done either by burning them, or boiling them in ley, until they become friable, and then grinding or pounding them to a powder. The method of rendering bones friable by boiling them in common ley is the preferable one, as you thus secure the gelatinous or gluey matter of the bones, which, in itself, is a valuable fertilizer. The ley in which the bones have been boiled may be diluted until no alkaline taste can be perceived or very little, and in this state the diluted alkaline solution of gelatin may be applied to corn, beans, peas, cabbage, or almost any garden vegetable. The bones may then be pounded coarsely or ground, and used to turnip or other crops as bone dust, or as a top-dressing to corn, cereal grains, grass, or worn out pastures. Or you may make a pure superphosphate by putting any quantity of the bruised bones into some earthen jar or dish, and adding to them half their weight of oil of vitrol diluted with from two to three times its bulk of soft water. By occasional stirring for a few days this will become a paste which may be applied in the *liquid* state after being much diluted, or in a dry state mixed with charcoal dust, dry muck, saw-dust, plaster, loamy earth or sand.

As accidents in the way of burning or discoloring spots of the clothing are apt to happen from the handling, mixing and stirring of the oil of vitriol, it has been proposed to disolve bones in a ley of lime. At a recent meeting of the Hillsboro' Ag. Society at Manchester, N. H, Gen. Riddle, being called upon by the President to relate his experience in the use of guano and other special manures, made some statements in regard to this way of dissolving and using bones, of which the following is a condensed summary.

Gen. Riddle took 60 galls. lye from oyster-shell lime to 200 lbs. of bones, and boiled them together a few hours, and the bones were all dissolved or reduced to a powder. A bushel of lime, he says will make six gallons of lye; and, farther, that bones dissolved or reduced in this lye make a dry powder, which may be applied like ashes. He put a gill of this powder to a hill, on 20 rows of corn, and omitted it on 5 rows through the field. There was an astonishing difference in the appearance of those different portions of the field. The corn where the bone-dust had been applied was much the largest, and of a far deeper green in color.

The mode of preparing bones for use by putting them into a hogshead with ashes, we have not found to work well. We prefer to use the lye from the ashes which, whether used cold or hot, dissolves the gelatinous part promptly, leaving the inorganic part easily manageable. In The Cultivator and Country Gentleman for 1854, will be found several articles on the preparation and use of bones as a fertilizer.

Even if not prepared in any way, let not bones be wasted. Let those who cannot be at any "fuss" with them, bury them deep, in small parcels, in his garden here and there, or near his grapevines and fruit trees, and he shall not lose his reward

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White Turnips for Cows.

Messrs. Editors—It will soon be time to sow turnips. I esteem them very valuable for milch cows. With your permission I will tell your readers how I raised and fed 500 bushels of turnips to milch cows.

My wheat was harvested early in July. I took three acres of stubble and drew upon it about 20 loads to the acre, of stable manure, muck and leached ashes, in about equal quantities. I then plowed the stubble, dragged thoroughly, and sowed common flat field turnips, brushing them in. In the fall I gathered about 500 bushels of good sized turnips, which I commenced feeding to my cows as gathered, and placed the balance in a *cool* barn cellar and fed them out every day until they were all gone, sometime in January I think.

"But," says the objector, "your milk and butter tasted of turnips." No, it did not. We made no butter but furnish about 120 customers daily with milk, and not the first one of them ever knew or mistrusted that we fed turnips. Not a single complaint reached our ears. I think this was owing entirely to the *manner of feeding*, and if any of your readers will follow our course *exactly*, we are confident the milk or the butter will never taste of turnips.

We had 2 men to milk 10 cows each, and the third man put the turnips in a long box and cut them with a spade, after which four quarts of corn and cob meal were sprinkled on each bushel. As soon as the milking was finished, the cows were fed 1 peck of turnips each; this was done twice a day, and the cows gave a good supply of milk. I think the time of feeding is the point. The cows must be fed *immediately* after milking and at no other time, and the quantity fed must be such as they will eat up immediately. With these precautions we have a feed for cows which can be raised very easily and very economically.

E. Ware Sylvester.

Lyons, N. Y.

The Chilian Guano Fraud.

The *American Farmer*, published at Baltimore, Md., copies our article on the "Chilian Guano Fraud," and remarks:

> Two lots of 100 bags each, of guano purporting to be "Chilian," were consigned to this market from Boston and New-York in April, as will be seen by reference to the Inspector's report for that month, published in our paper. These lots came highly recommended with a printed circular and analysis signed by Dr. Hayes, State Assayer of Massachusetts, and endorsed by Dr. Mapes, Professor of Agricultural Chemistry, Newark, N. J. After speaking of its peculiar qualities, they say: "In any application where Peruvian Guano succeeds, this guano may take its place, as its ammonia compound is sufficient in quantity and condition to render it a powerful fertilizer." In a letter subsequently written by the consignor from Boston to his agent here, after receiving the analysis of the Inspector here, (making it comparatively worthless,) he says the Inspector must be in error, as he is assured by Drs. Mapes and Hayes, that it is equal to the best Peruvian, and that it commands a high price in England. At the request of the Inspector, the consignee had an analysis made by Dr. Stewart, of this city—the result of which confirmed the analysis of the Inspector, and proved its commercial value to be, as estimated by him, but $13 00 per ton, while it was held at $40, and said to be equal to Peruvian. The result has been that not one pound has been sold in this market, and the exposition made in the "Country Gentleman," confirms the written opinion given the consignee by the Inspector, that neither lot had ever been within 3000 miles of the coast of Chili.

From the above, no one can doubt that the article manufactured near Newark, is the same as that sent from Boston and New York to Baltimore. We estimated its "*outside value*" at $15 per ton. Dr. STEWART estimates it at $13. We were told in Newark, that it had been sent to England, and the consignor avers that he was informed by "Drs. MAPES and HAYES, that it commanded a high price in England." Can any one doubt, therefore, that the "Chilian guano" referred to by Messrs. HAYES and MAPES is the same as that described by us as manufactured near Newark?

Thanks to Messrs. REESE and PLEASANTS, the guano inspectors at Baltimore and Petersburg, the farmers of Maryland and Virginia have been put upon their guard against this worthless stuff, which some one at Boston has endeavored to palm off upon them, upon the authority, *as he states*, of Prof. HAYES, "assayer to the State of Massachusetts," and Prof. MAPES of Newark. We trust, however, that one of these gentlemen, (if not both,) will be able to show that he has been in no wise accessory to this attempt at fraud. Our columns are open to these gentlemen, for any explanation they may wish to give, of their connection with this matter.

We also call upon the gentleman at Boston, who sent this spurious guano, to Petersburg, Richmond, Baltimore, &c., to inform the public whether *he* was deceived by the maufacturers of the article and by the analysis and recommendations of Messrs. HAYES and MAPES; and if so, to come out and clear his character from the stain which cannot fail to attach itself to his "respectability," if he remains any longer silent. He knows where he procured the "Chilian Guano," and, if he was deceived respecting its character, he can easily clear himself by exposing those by whom he was deceived. Will he do it?

Horse Breeding.

It may be accepted as a rule, having few, if any exceptions, that it is most profitable to breed the best descriptions of horses. These can only be obtained from first-class animals; and even the use of such will not be sufficient without the addition of the exercise of considerable skill and good judgment in the rearing and management generally.

Notwithstanding the unquestioned and manifest truth of this position, many act in contrariety to it, and continue to breed from inferior animals. Many permit themselves to indulge in such a *short-sighted* economy and in such erroneous calculations as lead them to think that they cannot afford for breeding purposes anything but old and broken-down mares. And then the impression seems to be very general that perfection or good qualities in the sire will counteract and redeem any defect in the dam. That the sire does exercise a powerful influence on the general appearance of the progeny is not to be denied, this being most marked and manifest in the general outlines and in color. But the qualities of temper, disposition, endurance, courage and others of like nature, are generally more evidently derived from the dam. A gentleman with a quick eye for good points in a horse has stated, that in repeated journeys through some of the Western States, he has seldom seen any superior, or even any really good horses. These States, or those portions of them which are situated upon the main thorougfares, seem to abound in all kinds of half-bred and defective horses, which would be of small value in the best Eastern markets.

To raise good horses, it has been often said, but needs to said again,—we must begin with sound and good materials. Both horse and mare must be free from any constitutional or transmissible vice or defect, such as spavin, ring-bone, contracted feet, heaves, or any affection of the breathing apparatus. If either parent is thus diseased or otherwise defective or unsound we cannot obtain a sound progeny. Occasionally an animal may be produced which may appear to be sound and healthy, and may continue to appear so until hardship, ill fare, or the attack of some disease, brings the defective constitution or hereditary taint sooner or later to the open light.

While so many errors continue to be committed in the breeding of horses,—while so few possessed of the requisite skill, tact, means and good judgment, are engaged in this business, it cannot be otherwise than that it might be carried on with *no small profit* by any possessed of the skill, tact, conveniences and judgment which are necessary for the highest success. A large number or a majority of purchasers have discrimination enough to discern between the offspring of parents of good constitution and the most valuable points, and the offspring of parents defective in these particulars. In addition to a proper selection of animals to breed from, there are other things essential to rearing horses of the most desirable qualities. Among these we would name as the most important, proper care and feeding during gestation, and also during the whole period of growth from infancy to maturity. The profits, as well as the satisfaction and pleasure, of the breeder will, as a general rule, correspond in some measure, with the amount of skill and good judgment exercised in these and other particulars of managment.

Singular Death of a Calf.

EDITORS ALBANY CULTIVATOR—Having just lost a beautiful thorough bred North Devon heifer calf, under the following circumstances, I shall feel greatly indebted to any of your correspondents who can throw any light on the subject, so that I may if possible provide against a recurrence of a similar case; or who can suggest a remedial agent? The calf (about 2½ mo. old) was turned to the dam in the morning, in its usual health to all appearances, frisking and playing about the farm-yard; as soon as it had finished sucking, the milk maid observed the milk spurting from its mouth, and in a few minutes it began turning around in a rapid manner, beating the left side with its head, and thus continued to do for about 2 hours, when it fell and expired. There are about 2 dozen laurel bushes growing in my lawn in which, it being well set in artificial grasses, I permit my calves to run during the day. I have frequently noticed them nibbling at the bushes, but if it was the laurel poisoned the calf, would she not have been affected before sucking in the morning, or is it probable that the laurel leaves and milk proved a poisonous combination? The calf had sucked the previous night, and appeared to be, in the opinion of the milk maid, enjoying its usual health and even frolicsome, until turned to the cow in the morning The dam grazes on a salt marsh in the morning and a clover piece in the afternoon. The case appears to be inexplicable to me, and I shall be under many obligations to any gentleman who will solve the mystery through the pages of the Cultivator. D. H. HATTON. *Nansemond Co., Va.*

Fatal Disease in Horses.

MR. TUCKER—I wish to state in your widely circulating paper, that last fall a most alarming disease broke out amongst the horses in this and some few of the adjoining counties. It continued through the winter, and I think has not yet entirely subsided. It has killed perhaps two hundred head.

The seat of the disease is doubtless in or about the brain, as dissection shows the membranes in that locality inflamed, and in many cases in a suppurating condition.

The animal staggers, and often pitches about violently; beats its head against the stable wall, until it is much bruised, and the wall bloody; turns blind, and in many cases dies in a few hours—comparatively few recovering at all.

The disease is new here, and remedies are but guesses, and seem to do but little good. Some call the disease *blind staggers*, with what propriety I know not.

If you, or any of your readers, have any experience touching this disease, its cause and remedy, it will b read in this locality with much interest, as some persons have lost nearly or quite all their horses with its great suddenness of attack and fatality. E. LINK. *Greene county, Tenn., May 9th.*

Management of Rabbits.

MESSRS. EDITORS—I will reply to your able and complimentary correspondent, Mr. HUTCHINSON, in the *Country Gentleman* of the 17th May, to the best of my ability. Being well pleased with the Lop-eared or Madagascar Rabbits, I endeavored to breed them, but failed in many instances. After much inquiry I came to the conclusion that to ensure success we must conform our managment and food as nearly as circumstances would permit, to the climate and productions of their native country, and on so doing, our success will mainly depend.

Ex. No. 1.—Erected at considerable expense, a covered building 22 by 12, divided off into pens 4 by 8, with every convenience for a winter or summer residence, and dedicated it "Our Rabbitry." Gave the rabbits good and sweet hay and oats, all they would eat—ripe and sound apples every day—turnips all they would eat, and sometimes gave a medium sized cabbage leaf to a full grown rabbit—sometimes would omit for 2 or 3 days giving anything but hay and oats—gave no water at any time; and the result was they were doing well; and as the man we read of said, "He was doing well, and wanted to feel better."

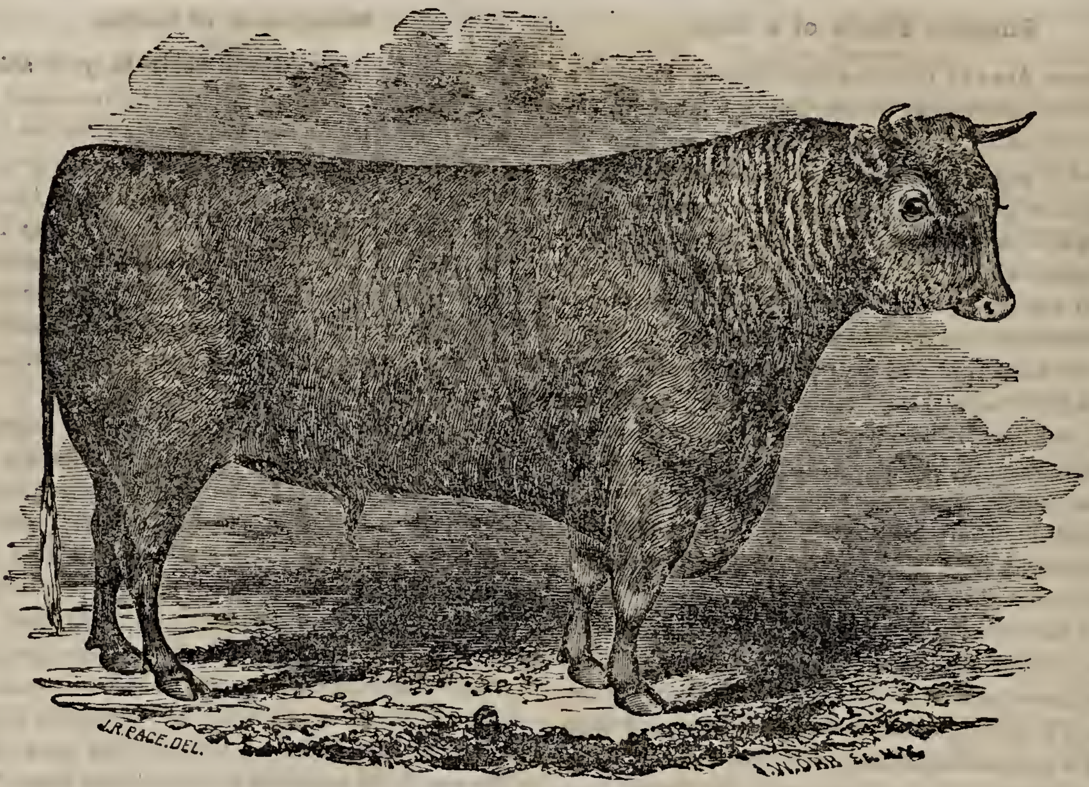
Ex. No. 2.—We commenced in the spring, and continued to the middle of July, giving them all they would eat of excellent green clover and other succulent food, and lost some of the *old stock* and every young rabbit before 4 months old.

Ex. No. 3.—Commenced cutting short of all green food, cabbage and the like in particular, and was getting along better. Our old rabbits did not die, and succeeded in raising one or so out of each litter. Thinking it would do a litter of young (2 months old) good, made a pen out in the open ground, partly covered so as to shield them from a storm, and they all died before 3 weeks.

About this time we were getting over the "rabbit fever;" but our friend handed us "Delamater on Rabbits," &c., and we began to "breathe easier," and quietly submitted to follow out his directions as far as our climate and circumstances would permit, and have succeeded in doing well up to last week, when we thought, as a final and last experiment, we would just try Mr. ROTCH's system of feeding, on an old *doe*, which until this time had been with us through all our *adversities*. The result was we *buried* her on the 28th May, 1855.

To breed successfully, "Madagascar or Lop-eared Rabbits," *dry food*—temperature, summer and winter, about 75 degrees Fahrenheit—"hands off, or look but don't touch the young," and it will apply to the old—and if you desire to feed *grass*, cut and let it dry one day in the sun. We have of late given a small handful fresh cut without dew or rain upon it, but give it as a salad. Give no leaves of cabbages or the like at any time.

The past winter we fed the best of hay and oats, all they would eat, together with a medium sized ruta baga or turnip, to a full grown rabbit, each day, and occasionally the *stumps* of cabbages, but on no occasion *leaves*, as we feel certain it will do them no good, and will injure in a greater or less degree. Avoid placing your hutches in a damp place or draughts of wind, as it is certain death to the old and young. JONATHAN RAMSEY. *Middletown, Conn.*


J.R.PAGE.DEL.
N.ORR SC.

North Devon Bull Frank Quartly.

Frank Quartly (205 Davys' Devon Herd Book) was bred by Mr. John Quartly, the celebrated English breeder of Devons. He was selected and imported by Col. MORRIS of Mt. Fordham, his present owner. He won the 1st Prize as an aged bull at the N. Y. State Show in 1854, and the 1st Prize as a two-years old at the N. Y. State Show in 1853—also the 1st prize at the American Institute in 1853. Sired by Earl of Exeter (38), by sire Baronet (6), dam Curly (96), by Favorite (43.)

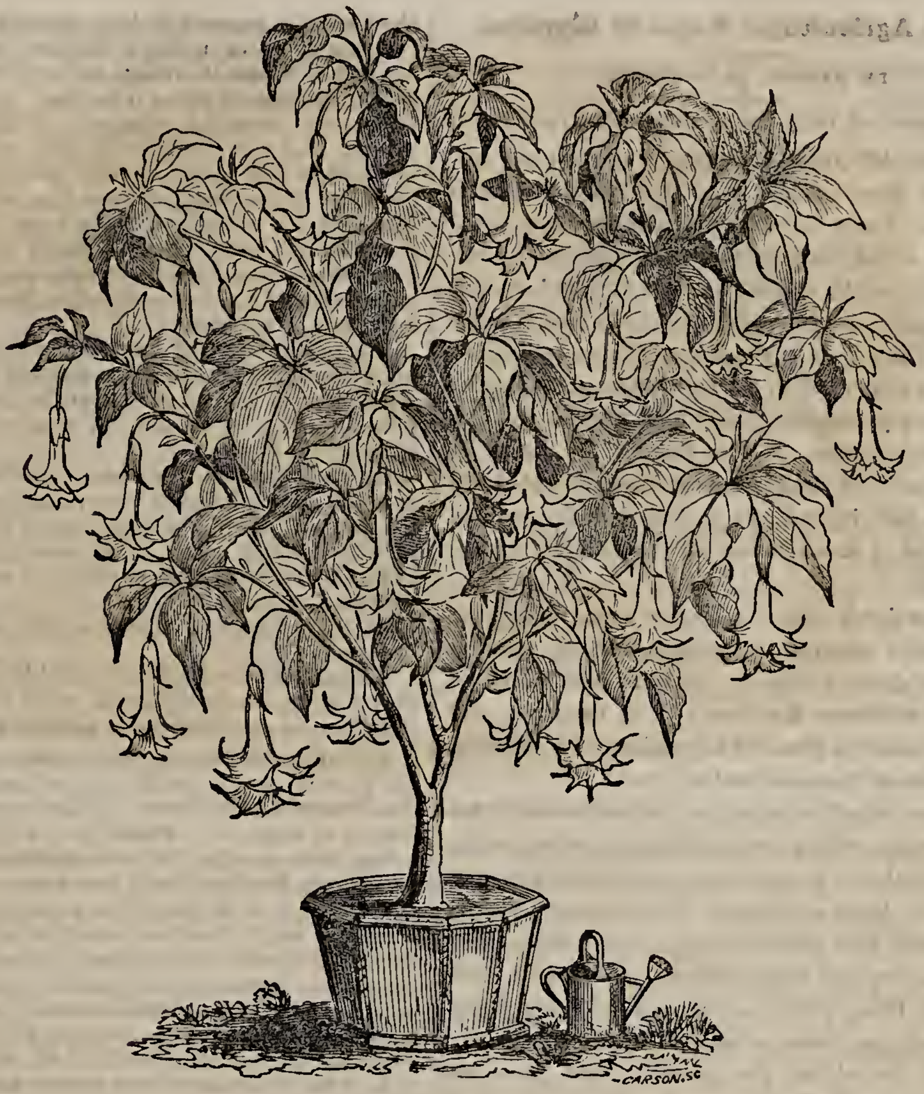
Another Way to Raise Calves.

L. TUCKER—Among all the various ways for raising calves, described by your correspondents, there seems to be none adapted to the wants of the cheese dairyman. The farmer keeping thirty cows, should be able to raise some half dozen calves annually, from the best milkers in his herd, to supply the place of those failing from old age and casualities of various kinds, and to improve his dairy stock, at a cost somewhere near the value of the animal when matured. The idea of raising stock to supply our wants by feeding calves for three or four months on new milk, either from the pail or at the teat, is to say the least, *simply absurd*. One gallon of milk makes a pound of cheese worth to the producer ten cents, or the same value if made into butter. A calf requires two gallons perday, equal to twenty cents. Three weeks feed at this rate amounts to as much as the calf may be expected to bring at four months age. There is then a loss of twenty cents per day for the remaining two or three months that they are fed, amounting to a loss of at least eight dollars each the first season. In a butter dairy the skim or sour milk may be fed perhaps. Unless there is some cheaper method to be practiced, *we* can never render our *city beef eaters* any relief.

My method is as follows, and calves may and have been raised by it that were very far above the average, even of good lots, at four months. Take the calf from the cow at three days old, and learn it to drink; it will learn far easier then, than at any time after; feed new milk twice a day for two weeks and once a day one week longer. At two weeks begin feeding once a day, and in a week more, twice a day, *porridge*, made of three to four quarts of sweet whey and one pint of meal of a mixture in nearly equal parts of oats, buckwheat, corn and rye. Cook as if for one of the human family. The cost of one quart of this meal, (daily mess for each,) may be three cents, which is all the value they consume, the whey being of too little value to make any account of. Give this feed four months, and continue the whey a month longer, always with a good bite of grass, tender and sweet, and no fears need be entertained for the result. The first winter give warm shelter, good hay, and one pint of oats each, daily, and my word for it you will never be ashamed to have a neighbor call and look at your young stock. VERMONTER.

AMERICAN INSTITUTE.—The regular annual election of the American Institute, came off on the 10th inst. The following ticket was successful:—

President—ROBERT L. PELL.
Vice Pres'ts—Robert Lovett, D. Reese, Joseph Torrey.
Rec. Sec'y.—Henry Meigs.
Cor. Sec'y and Agent—Wm. B. Leonard.
Treasurer—Eward T. Backhouse.
Finance Committee—John A. Bunting, George Bacon, N. G. Bradford, George Dickey, James R. Smith.
Managers of the Fair—Peter B. Mead, Isaac V. Brower, Jacob C. Parsons, Samuel D. Backus, J. N. Wells, Jr., Bailey J. Hathaway, David R. Jaques, Henry Steele.
Committee on Agriculture—David Banks, Robt. S. Livingston, Thomas Bell, Nicholas Wyckoff, D. K. Sherwood.



THE DOUBLE BRUGMANSIA.

Some of the old family of *Daturas*, now called *Brugmansias*, are well worth a place in the flower garden during summer, for their very conspicuous blossoms. They readily strike from cuttings in the ordinary way, and if allowed plenty of room and water during summer, soon grow to large plants, without which they do not flower good or appear very effective. They also require the protection of the green-house in winter. The best way is to select a good open spot on the lawn, and form a round bed about four feet in diameter, of rich earth, and plant a good strong, healthy plant about the first or second week in May. They will soon commence flowering, and continue till fall, when they will require well cutting back, and may be placed in any spare corner of the green-house. They should be kept from growing as much as possible during the winter, by withholding water except sufficient to keep alive, and by placing them in the coolest part.

There are several kinds worth growing; the one illustrated above, *B. Knightii*, is perhaps the most showy. The flowers have a sort of double appearance—that is, one of the tubes placed within the other. The flowers are pure white, often nine inches long, and highly fragrant, especially after nightfall. *B. sanguinea* has flowers of white and green; *B. sauveolens*, large white flowers, sweet scented. *B. floribunda*, has orange colored flowers. Edgar Sanders.

Liquid Manure at the Roots.

The following mode of applying liquid manure directly to the roots of plants, without moistening or baking the surface, is furnished by a correspondent to a late number of the London Gardener's Chronicle. It may perhaps serve as a valuable hint to the acceleration of the growth of other plants.

Allow me to bear testimony to the value of this mode of applying liquid manure to Melons and Cucumbers. I have practiced it for the last five years as follows:—Having put in the pit or frame about two thirds of the soil intended for the plants, I then placed on this soil horizontally, at about 18 inches from the sides of the pit (all round,) a row of common drainage pipes about two inches in the bore, together with three or four placed perpendicularly leading into them—I then put on the other third of soil. By this means you are able to water the roots with liquid manure without interfering with the surface. As a proof of the success of the plan, I may mention the following facts:—On the 21st June, 1853, I exhibited a Victory of Bath Melon at the Guildford Horticultural Exhibition, and gained a prize. I brought it home, sowed the seeds next morning, and cut and showed on the 24th September at the same place, from this sowing, and gained another prize. This surely was not bad work.

On the Agricultural Value of Gypsum.

BY SAMUEL W. JOHNSON.

No. I.—Nature of Gypsum—Results of Experience.

It is nearly 100 years since gypsum (plaster of Paris, sulphate of lime,) began to acquire its agricultural significance. Since that time it has become celebrated on account of the successes that have attended its use, while the ill results, and want of results that have followed its application, have not failed to make it many enemies. FRANKLIN in the United States, and SCHUBERT VON KLEEFELD* in Germany, toward the close of the last century, simultaneously gave a great impulse to the use of gypsum. Within the last 70 years an immense number of observations and experiments have been made with it, and yet to this day the method and condition of its action are very imperfectly understood.

It is the writer's intention to give a short summing up of the most reliable information as to its uses and application, derived from the statements of practical men ; then to discuss the theory of its operation, and finally, to submit a plan for a practical and scientific investigation of its action and effects.

The reason why this subject is yet so obscure, is not that the mystery which now envelopes it, is impenetrable : it is, that the proper means to throw light upon it, have not been employed. There cannot be the slightest doubt that patient investigation will in course of time clear up all contradictions, and doubts, and make every thing plain, and though probably many years will elapse before we shall fully, or sufficiently, understand the subject, yet probably, also, in a few years we may see it from a new and better position, provided we seek to solve the problem in an earnest and intelligent manner.

Before we attempt to learn that which is now unknown, we must first of all carefully examine our existing stores of knowledge—we must have in mind all that has been done and learned relating to the subject : we thus acquire points of departure, discover the trails which may guide us through the maze, and save ourselves the trouble of repeating what has been already either well, or vainly done.

What is gypsum? When pure and unburned, 100 lbs. contain :

Lime,	32½ lbs.
Sulphuric acid,	46½ "
Water,	21 "
	100 "

The water is in chemical combination with the sulphate of lime. By heating the compound, the 21 per ct. of water is driven off, and what remains, called burned or boiled plaster, consists in 100 parts of

Lime,	41 pts.
Sulphuric acid,	59 "
	100

The agricultural effect of burned and unburned plaster, so far as we know, is precisely alike, for when the former is exposed to dews or rains it immediately recovers its water, unless it has been too strongly heated, in which case it attracts water slowly or not at all. This attraction of water is in itself no advantage, for the water attracted combines chemically with the plaster, and can never be of avail to the plant any more than the water already contained in unburned gypsum. When the plaster has thus satisfied its chemical thirst for water, it has no more absorbent power for that substance, than so much ordinary soil, and hence the notion that plaster helps vegetation to water, and is thus of agricultural value, is not supported by a particle of evidence.

The advantages of burned plaster are, that it is more easily reduced to a fine powder, which facilitates its solution in water and its distribution throughout the soil. Besides, by its use the transportation of 21 per ct. of water is saved.

On the other hand, unburned plaster is cheaper by so much as the burning costs; and burned plaster, if too strongly heated, may become a little less readily soluble in water. This latter consideration is not probably of much weight, so that it is reasonable to suppose that on the soil

79 lbs. of burned plaster = 100 lbs. of unburned plaster.

Actual experiments have failed to establish any superiority in the agricultural effect of one form over the other, in case both were equally pulverized.

The above statements refer to *pure sulphate of lime*, but plaster as quarried for agricultural purposes often contains several per cent. of admixture, as clay, carbonate of lime, &c. These are of little consequence unless their quantity be quite considerable ; and they can hardly interfere with the action of the gypsum, unless indeed it be burned at a very high heat, when caustic or quick-lime may result from the decomposition of the carbonate of lime. I have indeed found quick-lime in commercial plaster ; whether it often occurs therein, and to what extent, I cannot say. Its presence would perhaps account for the ill success of some in fixing ammonia with help of gypsum, for, as is well known, caustic lime expels ammonia from all substances that contain it.

What crops are benefited by plaster?—It were not difficult to find authentic cases of plaster having proved useful on almost every field crop, and there is no lack of instances in which it has failed on every one. But the loose way in which the statements of farmers are often given to the public, makes many of them of little or no value. It is a well recognized fact that circumstances alter cases ; when we know the circumstances we can understand the difference in the cases. Usually in the records of experience and experiment, which we find in the papers, so few *circumstances* are taken into the account that we are actually no better enlightened at the end of the story than before ; there is no making out the *case*. This is especially true of the statements with regard to plaster, and hence we find contradiction upon contradiction, and contradiction contradicted. It is not that statements do not contain the truth ; they may contain nothing but the truth, but they rarely include *the whole truth*. This is not at present to be entirely helped, but there is vast room for improvement. In attempting therefore to give a summary of the results of practice in the use of gypsum, it is only possible to assume as facts those statements which have been confirmed by the according voices of many observers.

It is the result of all experience that plaster is especially advantageous to the cultivated *leguminous plants*, viz: clover, lucerne, esparsette, vetches, peas and beans. Its effects upon clover, in particular, have been remarkable. European writers assert that to gypsum is largely due the introduction of clover into agriculture, and the many improvements that have followed its cultivation.

On other crops it seems to be beneficial only by way of exception, and yet the exceptions are numerous and often striking. After the above specified plants, tobacco, cabbage, rape, hemp, flax and buckwheat, are mentioned by GIRARDIN as benefited by plaster. All writers agree that grain crops are rarely influenced by it. In the United States gypsum has been reported useful on almost all crops. It is a favorite application to meadows. Prof. NORTON used to mention the case of meadows near Springfield Mass., on which the mere application of a few bushels of gypsum (2 to 3 bushels if I remember rightly,) per acre, ensured a good yield of grass, where otherwise the growth was very inferior.* It is also very common to apply a handful of plaster to each hill of corn and potatoes at the time of planting, or when the plants are some inches high—how often profitably, we have no means of knowing. It has indeed been found useful on wheat.

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* Schubert of Clover-field, so knighted by Joseph I., on account of his merit in extending the cultivation of clover.

There is obviously need of new trials *on every kind of crop*. We may reasonably hope one day to learn under what circumstances plaster can be useful, even to those crops for which it is not usually recommended. Undoubtedly those conditions which cause the occasional failure of plaster to benefit the leguminous plants, are closely related to those which make it more generally unreliable when applied to other crops, and the conditions that make it generally useful to the former, make it sometimes valuable for the latter.

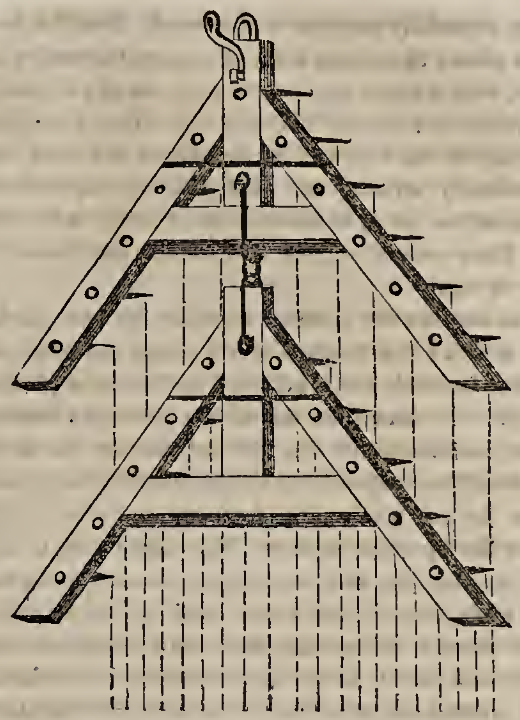
What part of the plant is most developed by plaster? With regard to this question, experience answers that the increased development of a plant consequent on the use of gypsum, is disproportionately great in the *stem* and *foliage:* the production of *seed* is not greatly increased. This observation stands naturally connected with the fact that plaster is most efficacious on those plants used for fodder, which yield a large mass of vegetation, and least valuable on the grains which are cultivated mostly for their seed. Tobacco and maize, which have much foliage and stem—potatoes which develop much foliage under cultivation, and produce fleshy tubers and little seed, are further examples. A few experiments are on record, in which plaster applied to peas, produced a decided increase of straw, but hardly affected the amount of seed. STOCKHARDT however, says that the seed-production is usually increased, though not proportionately to the straw.

The effect of gypsum on the quality of the plant. Whether crops which have attained a larger growth in consequence of the use of gypsum, contain a larger proportion of sulphuric acid and lime than similar crops produced by the same soil without plaster, is not yet fully ascertained, since experiments made to determine this point have not agreed in their results. New investigations would easily settle this matter, one very important for the theory of the action of plaster.

It is well known that peas often refuse to cook soft, even after hours of boiling. The reason of this is not at all understood. It has been asserted that manuring the crop with plaster, gives the peas this quality; but the contrary is also asserted. This is a point to be studied. (*To be continued.*)

Hanford's Harrow.

MESSRS. EDITORS—I noticed in the *Country Gentleman* of March 1st, a request, by L. E. M., that some of your subscribers would give him the dimensions of the Geddes Harrow. I cannot give him its dimensions, but I can give the dimensions of one of my own constructing, that after one year's trial, I can say is a good one, and one that obviates some of the objections raised against the Geddes harrow. Mine is two V harrows, attached one behind the other, and about eighteen inches apart, as represented in the accompanying cut.



The frame should be made of three-by-four white oak scantling, but second growth white ash, or very solid blue soft maple will answer, when it is desired to have them as light as possible. The forward harrow is made with a centre piece framed into a brace, and is two feet one inch from the forward tooth to the inside of the brace; the brace is framed into the side pieces or wings on either side, and forward of the *three* back teeth. The wings are *five feet five inches*, from the forward to the hind tooth, containing five teeth in each wing, and one forward in the centre piece, and *six feet three* inches across the hind teeth. The hind harrow is made in the same manner as the forward one, except that the brace must be placed farther back, and forward of only two hind teeth on each side, and the wings are *four feet ten and a half inches* from the centre of the middle piece to the hind tooth, with five teeth in each wing, but none in the middle, and set in such a manner as to exactly divide the space between the forward teeth, and mark three and three-fourths inches from centre to centre of the furrows of the teeth, the outside teeth of the hind harrow marking within the outside teeth of the forward one. The wings are united to the middle piece, and secured by a band shrunk on far enough back to make it solid, and to receive a half inch screw bolt through the wings and middle piece forward of the band, and the nut turned up snug.

The teeth should be made of ¾ iron, unless the ground on which it is to be used is quite rough and stony; then perhaps ⅞ iron should be used; they should be about eleven inches long, and the top end should be made dovetailing nearly the thickness of the frame down to a size to receive a burr, and a good screw cut on it, so that when drove the end of the tooth will come the thickness of the burr above the frame. The holes should be bored with a bit just the size of the screw on the top of the frame, and the under side beat out with a chisel, to exactly fit the tooth, but not too large, especially endwise of the wood. Put the tooth in its place; then place a bar of iron on the end of the tooth, with a small square hole near one end to receive the point, and drive it in firmly with a heavy hammer, striking on the iron bar by the side of the tooth, and occasionally striking the tooth sideways against the grains of the wood, to make it stand firmly in its socket. Then put on a good iron washer, and screw the burr on tight.

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* Will some one who knows cases of this kind, communicate the same to the Country Gentleman?

The harrows are fastened together by two clevises and a link; the forward clevis clasps the brace and reaches forward, and is attached to the centre piece by the pin. To draw from the middle piece by a common clevis, inclines to lift the forward harrow too much, but should be used with one similar to the one represented in the cut, placing the draft one and a half inches above the top of the harrow. This causes them to draw flat, or swim fair, as it is sometimes termed, while they hold each other to the work. And by means of the clevis joint, in the middle, they adjust themselves very easily and quickly to an uneven surface of almost any kind, while a sod, or a stone, or an obstruction of almost any kind, can scarcely get more than one wing from the ground at a time.

It is light of draft, and easily handled, or transported, weighing, as mine does, but 160 pounds, or 80 each. I am satisfied from using it, that it will do more work in passing over the ground once, than any common single harrow that I have seen work, will with the same number of teeth, in passing over the ground twice. I would not wish to disparage the Geddes harrow; it is a good one, and a great improvement on the old instruments; but there are some objections raised against it, some of which I think are obviated in mine. Some of the objections that have been made to it are these: If a sod, stone, or any obstruction, passes under one of the forward wings, it raises both wings on that till it has passed over; then again when the back wing meets the same obstruction, both wings on that side are again raised until it is passed over by that wing. In passing lengthways of a ridge, the joint in the middle allows it to adjust itself to the shape of the ground very handsomely, but in passing crosswise of ridges, or over a hollow it being stiff longitudinally, it cannot shape itself to the shape of the ground, and can touch only the tops of the ridges. Or if an obstruction passes from the nose under the center of the harrow, it immediately raises up the middle, causing it to rest on the extreme ends of the wings, while it passes in this position, some five to nine feet, the length of the middle pieces, and the obstruction. But I am satisfied that any person, using this or many other kinds of the improved harrows of the day, will never wish to return to the slow and clumsy instrument of former times.

I do not claim any patent for my harrow, but wish that all should be benefited by its use. But will claim the right of dictating the terms of constructing, so far as to say that if any man shall desecrate, or prejudice the public mind against, or hinder the general usefulness of so valuable an implement, by constructing a bungling, awkward and unsightly instrument, he shall be liable to the discountenance of the friends of good tools, and to the everlasting execration of those that use bad ones. WM. B. HANFORD. *Walton, N. Y.*

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Seymour's Drill and Broadcast Sower.

EDITORS OF COUNTRY GENTLEMAN—I was not a little suprised in reading an article in your most valuapaper of the 24th inst., from the pen of L. G. NORTH—to think that a man who reaps annually one hundred acres of wheat at an average cost of about seven or eight shillings per bushel, and has a face to take twenty shillings per bushel for it if the market afford shim an opportunity of so doing,—who grows his large fields of corn at an average cost say of 25 or 30 cents per bushel, and without remorse of conscience takes 100, 200, 300, or even 400 per cent advance on it—who grows all his other crops and markets them in like manner, and that too without comparatively any expenditure of thought or application, should so deliberately censure an inventor who has spent many precious years of study and diligent application,—who has freely expended time and money to perfect an instrument for the use of Mr. North and others, if perchance he should receive an hundred per cent advance on the actual cost of manufacturing such machine.

I happen to know Mr. SEYMOUR, the inventor and patentee of Seymour's Grain and Garden Drill and Broadcast Sowing Machine, and for the last fifteen years have lived a near neighbor to him, and can assure Mr. North that for fifteen years Mr. Seymour has studied day and night, and expended his means in perfecting these most desirable farming instruments, and presents them to the world unequaled by any other machines for the purpose for which they were intended. Had Mr. Seymour abandoned the idea of perfecting that machine, when it was first conceived, and given the same application to tilling the ground, that he has to perfecting grain drills, he would to-day with ordinary prosperity, be worth ten dollars where he now is one, and our friend North and others might to-day have been using the imperfect drills of 1840.

In reply to the inquiries of Mr. North, I would say that very many farmers, who sow annually from 15 to 30 acres, in sections where these machines have been introduced, and where the economy of using them has been best understood, deem it not only *prudent* but highly necessary to own these machines. The saving in the amount of seed required, when it is drilled in, compared with that necessary when sown broadcast—the saving in the labor of fitting the ground (as the drill itself acts as a cultivator,) and the certainty of having the seed so placed in the earth as to secure speedy and certain germination, are each and all deemed sufficient reasons for its being *prudent* to own and use a drill. These remarks hold equally true with regard to wheat, oats, barley, buckwheat, peas, or any and all grains. E. M. BRADLEY. *East Bloomfield, N. Y.*

The Hunter Weevil.

SOLSVILLE, MADISON CO., N. Y., May 27, 1855.

MR. TUCKER—Enclosed, I send for your inspection, three insects, which I have never noticed before this spring; yet it is probable that they are well known to those who are better accquainted with the insect tribe than myself. These insects or bugs are committing great depredations upon the young corn. I have had two acres nearly destroyed in four days; and the same insects are at work in other fields in this place. They commence at the top of the stalk or leaf, and eat it to the ground, and often to the kernel. They are a very hard shelled insect; and we often find from three to six in a hill. They show no repugnance to salt or ashes; but are somewhat shy of lime. My object in writing to you, is, to ascertain if you are acquainted with this insect, and know of any thing that will *satisfy their rapacity, that is of less consequence than corn.* They will clear a field of young corn with wonderful rapidity. The wire worm and the cut worm are slow when compared with this insect. J. W. LIPPITT.

We enclosed Mr. L.'s letter and insects to Dr. FITCH, who has favored us with the following reply, in which the name and history of the insect are given.

MR. TUCKER—The insects from Madison county, sent you by Mr. LIPPITT, are a species of true *weevil* —very different from the wheat midge, which, most unfortunately, in our country, in common conversation continues to be called a weevil. This name, *weevil,* belongs only to very hard insects of the beetle kind, whose heads are lengthened out into a long, slender snout, giving them some resemblance to a miniature elephant with its trunk hanging downwards in front; and their horns or antennæ are elbowed, resembling a flail, like those of ants and bees. All true weevils may readily be known by these marks. They are among our most injurious insects, and hence will be often spoken of, and it will always lead to confusion and mistakes if we call other insects by this name. And I coincide with the Hon. GEO. GEDDES in saying, whenever a correspondent applies the name weevil to the wheat midge, it is the duty of our agricultural editors to strike out this erroneous name and insert the correct one, or enclose it in a parenthesis following the false name, until this glaring error is rooted out of our community.

This particular species of weevil was first described by Mr. SAY, in a tract upon the insects of this family, which he published at New Harmony, Indiana, in the year 1831. He gave it the specific name *venatus,* which is a Latin word meaning *hunting,* probably from the circumstance of his finding this insect wandering about in fields and forests, without appearing to be attached to any particular plant as the members of this family generally are. And it pertains to the genus named *Sphenophorus* by the Swedish entomologist SCHONHERR—which name is compounded from two Greekwords, implying *wedge-carrier* The body of these insects has some resemblance to two wedges, the heads of which are placed together, with the points in opposite directions, being broadest in the middle and tapering towards both ends. Thus the correct name of this insect is *Sphenophorus venatus,* or the HUNTER WEEVIL. It is a little over a third of an inch long, of a black color, the thorax with elevated smooth spots, between which are coarse punctures appearing as though filled with dirt, and on the wing covers are similar though still coarser punctures, placed in rows upon fine impressed lines which run lengthwise, and are alternated with rows of finer punctures. These coarse punctures and the smooth spots on the thorax can be discerned by the naked eye; but most insects are so small that a magnifying glass is required for their examination, an instrument which costs but little, and which no intelligent farmer should be without, as it gives him such an amount of interesting and valuable information upon a multitude of things pertaining to his vocation.

I am not aware that any account of the habits of this weevil has ever been published. About the middle of June, 1847, a farmer from an adjoining town brought me several of these insects, saying they had nearly destroyed a field of young corn of his, sometimes eating up the young plants entirely, in the manner stated by Mr. LIPPITT, but in other instances merely gnawing a hole in the leaf, causing it to wither and die, from which circumstance he supposed there might be something of a venomous nature in the bite of this insect. As most weevils feed upon the ripened grain and seeds of plants, I could scarcely credit the statement which was given to me; but on going into the cornfields in my own neighborhood, I found numbers of this insect, destroying the young corn which it attacked, in the manner represented. I continued to notice it among the corn, until into the month of July. My attention has not been directed to this insect, since that time; but it can probably be found every year, in our fields of young corn; and when from any cause it becomes excessively multiplied, as it now is in parts of Madison county, as we are informed by Mr. L.'s letter, it will undoubtedly do great injury. It is a common insect, for I have frequently found it around the edges of stones in pastures, under the fallen leaves in groves, and among the dirt in gardens, from the month of March until July.

It is doubtful whether by lime or any other substance this weevil can be "doctored" away from the corn. But, as it is so large an insect as to be readily perceived, and so sluggish in its motions that it makes no effort to escape, "hand picking," as it is termed in England, will probably prove the most efficacious if not the only reliable resort, to save the corn crop from its ravages. And this is work particularly suited to the taste of children. Let these be furnished, each with a bottle half filled with water into which to drop and drown these insects, and probably for a few shillings reward, they in any neighborhood can be procured, to pass along every row of corn in the field, and pick up every insect that can be discovered. And the poultry will probably feed with avidity upon the insects which are thus gathered. Yours truly, ASA FITCH. *Fitch's Point, East Greenwich P. O., Washington Co., N. Y., June 4th,* 1855

Inquiries and Answers.

American Arbor Vitæ.—*R. H. Davis, Greene Co., Tenn.* The leaf of the plant sent appears to be that of the *American Arbor vitæ*, (*Thuja occidentalis*) modified perhaps slightly by the locality of its growth. [The answer to this inquiry has been unintentionally delayed a few weeks.]

Early Pears.—*R. B. T.* The six best summer pears, affording a succession of six weeks, are Madeleine, Summer Doyenné, Osband's Summer, Gifford, Rostiezer and Tyson. The Bartlett immediately follows these. On some soils, substitute Bloodgood for Osband's Summer. The Brandywine, Ott, and Moyamensing are new Pennsylvania varieties, not sufficiently proved north.

Early Bearers.—*V.* The following varieties of apples and pears come early into bearing, and are therefore well adapted to planting a new place.

Apples. Red Astrachan, Sops of Wine, Late Strawberry, Lowell, Oldenburgh, Dyer, Porter, Baldwin, Jonathan.

Pears. Julienne (takes the lead for early bearing, of all others.) Bartlett, Washington, Dearborn's Seedling, Madeleine, Buffum, Onondaga, Howell, Summer Doyenné, Oswego Beurre, Passe Colmar, Easter Beurre.

Transplanting Strawberries.—*S. N. Moore.* Next to setting out strawberry plantations early in spring, which is best for the northern states, plants succeed best when transplanted just after the bearing season. Their strength having been spent in producing a crop, they are nearly stationary at this period. Young plants should be chosen, and old ones avoided; the *larger* leaves should be removed, the roots dipped in mud, the plants settled by water when out, mellow earth should then be drawn over the wet soil,—and a mulch of manure two inches thick spread about them. Unless the weather is very hot and dry, they will need nothing more, and grow well, becoming well rooted before autumn.

B. M. B., Mossy Creek, Tenn. We cannot say whether it will pay to draw out the muck. It depends on its composition, the value of other fertilizers, and the price of the produce. It would cost you but little to try what effect it has on your soil. You might compost it with the green coarse grass and weeds which appear to be so abundant: a layer of grass and weeds and a layer of the dry muck. The heap would ferment; ammonia and carbonic acid would be generated; the ammonia would neutralize any acid the muck might contain, and the carbonic acid would have a tendency to liberate and render fit for assimilation the inert mineral matters.

Marl.—*E. Link, Greenville, Tenn.* It is impossible to judge of the value of your marl without an analysis. It may contain organic matter, some phosphates, soluble silicates and other salts of much manurial value, or it may be composed principally of carbonate of lime and alumina. In the former case it could hardly fail to prove beneficial to any ordinary soil, in the latter it would have a beneficial mechanical effect on light soils, and the carbonate of lime would furnish a permanent source of lime for the plants.

W. E. Woodward. Guano is best applied in a liquid state to a garden, but it may be dug or plowed in, early in the spring, with advantage. 500 lbs. per acre is a good dressing.

Poudrette.—*James O. Miller, Jr.* We know of no method of profitably converting nightsoil into good portable poudrette. The method of using it is the one you mentioned—making it into composts on farms adjoining the city. We are unable to state the best means of conveying it to the compost heap. Will some of our readers who have had experience inform us. We question whether saturating it with copperas, mixing it with charcoal and then drying it, can be done profitably. It is, however, a subject well worth investigating, and we hope you will succeed. We shall be pleased to hear from you, whether you do or do not find the business profitable.

Winter Pasturage.—I would gladly learn from those who know, the particular qualities of Rye and Barley for pasturage and for food in the straw. Our winters are very open and mild—land as rich as we desire it. What I mean is the best grain for winter pasturage. I have the Egyptian oats; they do well for hogs. Would not rye be a quicker, hardier growth, and barley a much sweeter one for stock? F. F. Gilsum. *Matagordas, Texas.*

Rye is usually considered a better crop for winter or early spring pasturage than barley or oats. We cannot tell how either of them would do in your climate. Multicole rye is the best variety for winter pasturage. In open winters it will afford considerable food late in the fall and early in the spring, and is said to produce a good yield of seed afterwards. Would not Italian rye-grass be better adapted to your climate and requirements? If the climate is suitable it will furnish as much winter food as any other plant we are acquainted with.

Movable Fence Posts.—In the Co. Gent. I see that one of your subscribers wishes to know how a post may be set in stony land where the holes cannot be made more than six inches deep. There is some fence made by one of our planters, by taking plank 2 inches thick by 18 or 20 wide, sawing it off the length desired for height of fence. Then splitting it with saw from within 4 inches of one edge to within the same distance of the opposite edge at the other end. By putting the wide ends and straight edges together, a broad base is obtained, say 30 inches across. Nail 2 strips of plank across, and you have a good supporter for either plank or railing, and not more timber in it than in a six inch square post, and it has this further advantage, it can be readily removed and set up at another place, being set upon the surface. F. F. G. *Matagordas, Texas.*

Ropy Cream.—Will you or some of your correspondents be so good as to furnish an explanation of the cause of cream becoming *ropy* at particular seasons?

Guano, Bones and Leached Ashes.—Which of the following manures are the cheapest at the prices set to each, taking into the amount durability and present advantages—Leached ashes, at 15 cts. per bushel; bones at 50 cts. per bushel, or guano at $50 per ton? to be applied on land the soil of which is a mixture of loam, sand or gravel. N. J. *North Lyme, Con.*

Leached ashes are a valuable manure for wheat,—judging, not from their composition but from their effects. In Western New York we have seen leached ashes benefit wheat on land where unleached ashes had little or no effect. We can give no satisfactory explanation of this phenomenon. It *may be* that the potash and soda of the unleached ashes are replaced in old leached ashes by ammonia, obtained from rain and the atmosphere. At present we are very ignorant on these subjects, and *deductions* and speculations are hazardous in agricultural science. But even should ammonia, to some extent, replace the potash and soda of the ashes, we can hardly suppose there would be *sufficient* of ammonia and other fertilizing elements in the leached ashes to make them worth 15 cents per bushel, if their value is confined simply to the supply of actual constituents of the plants. We believe on Long Island leached ashes are used as a manure for corn at a higher price than that named, and it may be that they have a beneficial mechanical action on these light soils which increases their value as manure.

The comparative value of bones and guano is one of the vexed questions of agricultural chemistry. Without, at this time, assigning the reasons for our opinion, we believe that one ton of good Peruvian guano is worth more than two tons of the finest bone dust or three tons of crushed bones. We should therefore, at the prices named, take the guano in preference to the bones or ashes.

Freezing of Sinks.—I wish to know if there is any possible way to prevent sinks from freezing up in the winter, in rooms where there is no fire. Ours has been frozen up 2 or 3 months this season, which makes it quite inconvenient. If you or correspondents will please answer the above through the Cultivator, you will oblige A Subscriber. *Elliot, Me.*

There is no way to prevent water from freezing, when exposed to a cold temperature—this is the unalterable law of nature. But there are easy, as well as difficult modes of thawing it out. When the discharge pipe of a sink becomes filled with ice, which is, we suppose, the difficulty our correspondent speaks of, procure a lead pipe of suitable length, and solder a small tin funnel into one end. Set the other end on the ice in the discharge pipe, and pour boiling-hot water into the funnel. It descends the lead tube, and striking directly on the ice, thaws it with great rapidity, the lead pipe settling as fast as the ice gives way. Ice may be removed from a pump or other tube in this way, in an almost incredibly short time—a few minutes will clear out several feet. The lead pipe with its funnel may be laid aside, when done with, for future use. If a sink becomes occasionally frozen, it becomes a very light task to remove the ice in this way.

Black Ants.—My yard and flower garden are much infested with black ants, to the no small annoyance of our household department, and the destruction of many bulbous roots and choice shrubs. Can you or any of your contributors, inform me how they may be destroyed, or be made to change their quarters. O. C G. *Ohio.*

We have been troubled but little with black ants and should be glad if some of our correspondents would answer the above. How would it do to pierce the ground with a smooth crow bar where the ants are most abundant. Will they not fall into the holes and be unable to get out? A little hot water poured into the holes would make short work with the prisoners. It is said that tomato plants are offensive to them, and that the surplus plants laid where the ants frequent will cause them to retreat. Whether all the different species would be similarly influenced, is another question.

A Cellar Above Ground.—I am so situated that I cannot have a cellar. Can you or any of your correspondents inform me how to make a building about 10 feet square that will protect from frost in winter and heat in summer. Also do you know of any work of importance on the raising, propagation and cultivation of ever-greens, where can it be obtained, price, &c. J. Forn. *Princeton, Ind.*

Will some of our correspondents answer the above.

Pipes for Water.—I have a spring, elevated 60 feet above my house—distance 70 rods. Would tile, enclosed in cement, say 1 to 2 inches thick, be likely to bear the pressure—the tile being 3 inch (the water to be taken from a reservoir.) We conclude that editors are bound to know every thing, and if you could answer my question you will confer a favor upon H. M

There will be no difficulty in bringing the water as proposed, provided the water runs simply down the slope, and the pipe is subjected to little or no pressure from a head of water—on which we are not informed. A three-inch pipe has 108 square inches of surface for every foot in length, consequently the pressure on each foot (a column one inch square and two and a half feet high weighing about a pound) would be 108 pounds for every two and a half feet of head, 216 lbs. for five feet, 432 for ten feet head, and so on. We are not able to say what amount of pressure the three-inch pipes encased in well hardened cement would be likely to sustain safely. The smaller the pipe, the less would be the pressure; a one inch pipe for instance, presenting only one third of the surface, would be subjected to only one third of the strain required for a three inch pipe.

Long-rooted Clover.—The "long-rooted clover," inquired about, in a late number, is the Hungarian or or Turkish, and is called "Esparcette." It is said to last for several years, and bear cutting two or three times in the season. Col. Benton spoke of it in his discourse at New-York on the Pacific Rail-Road, as growing wild at the foot of the Rocky Mountains, and being there used for Swine.

Steam for Threshing, &c.—Has Steam Power ever yet been used in our country in Barns for threshing, &c.? If so, which engines are the best, where can they be had, and at what cost? H.

Scours in Cows.—Several cows have died this spring in this vicinity of what is called the 'scours.' Do you know of any sure remedy? The stomach of one that was opened appeared all in a foam. E.

Lime for the Wheat Midge.—Daniel Thoburn, St. Clairsville, Ohio, writes: "Our crops never were more promising than this spring; an abundance of fruit, and everything the farmer can desire. One thing alone we dread now, the weevil (midge.) The wheat is just shooting, and as we suffered some last year from this little enemy, it is pretty generally expected that it will again visit us. Would the sowing of slacked lime on it when in bloom be a preventive?"

We are unable to answer this inquiry, and give the following, which has been going the rounds of the papers, for what it is worth. We should be glad to hear from any one who has used it successfully or otherwise.

We are informed by Mr. Chamberlin, of the City Mill, that the farmers of Vermont are in the habit of heading the movements of the weevil (midge) by a very simple process. The season after it makes its appearance they go through their wheat fields, about the time the wheat is heading, immediately after a shower or while the dew is on it, and scatter newly slacked lime broadcast, so that it will adhere to the heads and stems of the grain. They use about a bushel to the acre.

Good lime should be secured, and slacked by sprinkling a little water over it, so as to retain all its strength. A paddle may be used in scattering it. The remedy has, it is said, been so effectually tried, as to leave no doubt of the result.

Strips in large wheat fields left untouched by the lime, for experiment, have been entirely destroyed by the weevil (midge,) while the grain on each side was all saved.

Since this intelligence was received, Mr. Jesse Allen, of the Centre Mill, has received corroborating information from a Muskingum county farmer, who had seen the same practice and the same results there.—*Akron (Ohio) Beacon.*

Poudrette —Having seen an advertisement from the Lodi Mrnufacturing Company, of an article called "Ta Few," or dried night soil, may I beg you will state in the Country Gentleman, whether you know of any practical farmer having used such and the result. It is stated that 4 lbs. is equal to 3 lbs. guano. A Subscriber. *Chatham, C. W.*

We know nothing of the manure referred to above, farther than what is stated in the advertisement; but from that should infer that it would prove valuable. If any of our readers have tested its value, we should be glad to know the result.

Windmill for Raising Water.—I have a friend that wishes to buy a windmill for raising water for cattle. Will you please inform me where they can be had—price, &c. S. G. Clark. *Jamestown, Mercer Co., Pa.*

Management of Dairy Stock.

A gentleman of some celebrity and success as a dairy farmer, was lately requested by the Council of the Royal Agricultural Society of England to supply information regarding his mode of feeding and managing cows for dairy purposes. In reply to this request, Mr. **Horsfall** sent to the Society, during the month of May of this year, quite a lengthy communication, which contains abundant evidence of his being a most judicious manager in that department of farming to which he has particularly directed his attention. The communication made by this eminent dairy farmer to the Royal Ag. Society, is too long, and too full of details of little interest or utility to those engaged in dairy business in this country, to admit of its being transferred as it is to our columns; but the more interesting and instructive portions of that communication, so far as applicable in this country, will be found in the abstract of it which is herewith given.

Mr. Horsfall commences his report of his mode of management with his dairy stock, by saying that he had found it stated on good authority, that store cattle of a fair size, maintain their weight and condition for a length of time when supplied daily with 120 lbs. of swedish turnips and a small portion of straw, and that the experience of a district in Yorkshire, where meadow hay is the staple food during winter, shows that such cattle maintain their condition on 33 lbs. of such hay, each per day. These respective quantities of turnips and of hay correspond very closely in their nutritive properties, containing a very similar amount of albuminous matter, starch, sugar and phosphoric acid.

These same quantities of food, or their equivalents, if supplied to cows in milk, and of the same size, will be found insufficient, as the cows will lose perceptibly in condition. This is easily explained when we find their milk rich in substances which serve for their support when in store condition, but going to the formation of milk when kept for dairy purposes. Even the accumulated stores of flesh and fat on a milch cow seem to be drawn upon, and converted into components of milk, casein or butter. Dairymen near large towns, where fodder is higher than in rural districts, and where the dairy produce is disposed of in new milk, take advantage of the fact just stated. They prefer altogether cows in *high* condition when they purchase them, finding that their stores of flesh and fat will serve to be converted into milk at a cheaper rate than by purchasing fodder. They supply their cows with sloppy food, more adapted to induce quantity than quality, and when the cow has lost greatly in condition and is no longer profitable, she is sold to purchasers in farming districts where food is cheaper, to be fattened again for dairy purposes or for the butcher.

But when cows are kept mainly for the production of butter, for which poor milk is not adapted, the food of such cows must be that which is best adapted for an abundant supply of the product wanted. With a view to determine the kind of food best adapted for the production of the best quality of butter, Mr. H. was led to give attention to the chemical composition of milk. From several analyses, he has come to the conclusion that, taking a full yield of milk, 4 gallons a day, which will weigh upwards of 40 lbs., there will be, on an average, of dry or solid material 5.20, consisting of

	lbs.
Pure Casein,	2 00
Butter,	1.25
Sugar,	1.75
Phosphate of Lime,	0.09
Chloride of potass. and other mineral ingredients,	0.11
	5.20

In endeavoring to supply abundant material for these, by furnishing their elements in the food, Mr. H. found that turnips are objectionable on account of their flavor, which has led him to use them but very little for his dairy stock, and to use, in moderate quantities, instead of them, cabbage, kohl rabi, and mangold wurzel. If hay alone were to be used to supply the constituents of a full yield of milk, it would require an addition to the quantity needed for bare maintenance, so large, that no cow could be induced to consume it.

Finding that he could not use hay and turnips in such a way as to keep his dairy cows in good condition, and also to furnish them with an ample supply of the elements of milk for the production of butter, Mr. H. sought the aid of such substances as are rich in albumen, oil, and phosphate of lime, paying regard to their comparative cost with a view to profit. He thinks that nitrogenous and other substances have a higher value for special than for general purposes, and that this adaptation of materials characterized by peculiar properties, has not yet gained the attention to which it is entitled. After repeated trials to ascertain the kind of food best adapted to produce a full supply of milk, rich in butter, in addition to keeping his cows in good condition, Mr. H. has adopted the plan which follows, and which we give in his own words :--

"My food for milch cows, after having undergone various modifications, has for two seasons consisted of bean straw, oat straw, and shells of oats, in equal proportion, rape cake 5 lbs., and bran 2 lbs. per day for each cow. These materials are blended together, moistened, and well steamed; they are supplied three times, *ad libitum*, per day in a warm state. The attendant is allowed 1 lb. to 1½ lb. per cow, according to circumstances, of bean meal, which he is charged to give to each cow in proportion to the yield of milk, those in full milk getting 2 lbs. each per day, others but little; it is mixed with the steamed food on its being dealt out separately; when this is eaten up, green food, consisting of cabbages from October to December kohl rabi till February, and mangold till grass time. With a view to nicety of flavor, I limit the supply of green food to 30 to 35 lbs. per day each. After each feed, 4 lbs. of meadow hay, or 12lbs. per day are given to each cow; they are allowed water twice per day to the extent they will drink."

As some of the materials used by Mr. H. are not in common use as food, he annexes some remarks on what he regards as their distinctive properties.—*Bean straw* uncooked, is dry and unpalatable, but by the process of steaming it becomes soft and pulpy, emitting an agreeable ordor, and imparting flavor and relish to the mess. It should be cut on the short side of ripeness, which it may be without interfering with the plumpness of the bean. Mr. H. obtained from Professor Way, Chemist to the Roy. Ag. Society, an analysis of some bean straw grown on strong and high-conditioned land, which analysis shows a per-centage of—

Moisture,	14.47
Albuminous matter,	16.38
Oil, or fatty matter,	2.23
Woody fibre,	25.84
Starch, Gum, &c.,	31.63
Mineral Matters,	9.45

In albuminous matter, which is especially valuable for milch cows, bean straw has nearly double the proportion contained in meadow hay. *Bran* also undergoes a great improvement in its flavor by steaming, and it is probably improved in its capacity of being readily converted into nutriment. Bran contains about 14 per cent of albumen and is peculiarly rich in phosphoric acid, nealy 2 per cent. of its whole substance being of this material. The properties of *rape-cake* are such as will cause it to be more highly valued than it has ever hitherto been for dairy purposes, if the opinion of Mr. H. in regard to it be not altogether too high. It contains nearly 30 per cent. of albumen and is rich in phosphates, and also in oil. The objection made by some to it on account of its flavor, Mr H. has overcome by his mode of preparing it by steaming, &c. The cattle do not refuse it ; and the flavor is not at all perceptible in the milk or butter.

During the month of May, Mr. H. turns out his cows on a rich pasture, housing them at night, and supplying them with a mess of the steamed mixture and a little hay, morning and evening. From June to Oct., mown grass is given instead of hay, in addition to what they get in the pasture, and also two feeds of the steamed mixture. This is continued to Oct. when the cows are again wholly housed.

With such treatment Mr. H.'s cows usually give from 12 to 16 quarts (Imper.) of milk per day, and keep in good condition at the same time, for about 8 months after calving. Then they usually fall below 12 quarts, and gain several pounds every week in fat and flesh.

Another advantage or element of profit, is the richness of his manure from cows so fed. His pasture lands are yearly improved, and not impoverished. The average amount of butter from every 16 quarts of milk is 25 ounces. From this and former data the produce of his cows in butter may be readily acertained by any one dubious about the profits of this extra expense in feeding.

Cure for Warts.

I noticed some time since, that a subscriber in the Country Gentleman wished to learn how to cure warts on the head of a steer. I can tell him how to cure them on his own hands or those of his neighbors. Some years since, I had some large fellows on my own hands, and the manner I got rid of them, was to pare the top off with a keen edged knife or razor, until they bled a very little ; I then applied fine salt, and let it dry with the blood ; in a day or two perform the same operation again, and so continued doing until I got them down to the surface of the skin. They have never appeared since. Now if salt cured them on my hands, why won't it do so on cattle's heads? J. M. Jessup. *Matherton, Mich.*

Early-bearing Varieties of Fruits.

The inquiry is sometimes made why certain varieties of fruit trees bear while the trees are quite young while others prove tardy in this respect. It is sometimes attributed to the difference in natural thriftiness. The Northern Spy, it has been asserted, comes late into bearing in consequence of its rapidity of growth. But this reason, if correct, should apply to other sorts, such as the Baldwin, Sops of Wine, Late Strawberry, &c., which are also vigorous growers when young, and very early bearers. Again, the *form* of the tree is said to have an important influence. A distinguished Vermont correspondent of the New England Farmer, argues at some length to show that the Spy is unproductive from the very *erect* shape of the tree. We cannot perceive any uniformity in the application of this rule. The Bartlett pear is one of the most erect in growth, and so far as our experience goes, the earliest of all bearers. The Buffum, Louise Bonny Jersey, Washington, Amire Joannet, and others, are all erect growers and early bearers. There are, it is true, spreading trees which bear soon ; and there are other erect trees which are tardy in fruiting ; but they cannot constitute a rule with so many exceptions.

This quality appears to be a characteristic of certain varieties, like color, size, &c. for which no other reason can be satisfactorily found.

Oil Cake for Cattle.

While upon cattle, could not yourself or some of your correspondents, inform us in regard to using oil cake in fattening steers. How much oil cake should be given at a feed to a steer weighing say eight hundred lbs., and how often? A bushel of corn is equivalent to how much oil cake for fattening purposes? If we know in regard to its value as compared with corn, we could each make our calculations whether it would be more profitable to fatten entirely with corn, or to use a portion of oil cake. By answering the above through the COUNTRY GENTLEMAN, you will much oblige CHESTER CO., PA.

Some authorities estimate oil cake to be twice and even thrice as valuable for fattening purposes as Indian corn. This we deem a mistake. The estimate was made according to the per centage of nitrogen each food contains. This method of estimation, LAWES' experiments on sheep and pigs, prove to be erroneous. Mr. JOHNSTON, near Geneva, N. Y., who has had large experience in fattening cattle on oil cake and corn, is unable to decide which is best. He thinks that, weight for weight, there is very little difference. We agree with him in this opinion, so far as the fattening value of the two foods are concerned. But one of the profits attending cattle feeding in the older settled states, is the manure produced, and there can be no doubt that the manure made from oil cake is *twice as valuable* as that made from Indian corn. Oil cake, therefore is worth somewhat more as a food for cattle than Indian corn.

Notes for the Month.

To our Agents and Friends.

We beg our friends to remember that, although we take subscribers to The Cultivator, for the volume only, we can at all times furnish new subscribers with the back numbers, and that we shall be glad to add new names to our list at any time.

☞ Agents who have sent clubs, can add to their number, whether one or a dozen, at the club price; and any one of our readers who will take the trouble to get up a club, can have Ten copies of The Cultivator and Illustrated Register, for $5. The circulation of our journals, large as it is, is not half what it should be, and we shall be greatly obliged to all who will aid in extending it.

☞ In answer to numerous inquiries in regard to *Back Volumes of the Cultivator*, we will say that we have on hand the First Series of Ten Volumes (1834—1843) *complete*. Of the New, or Second Series, we have those for 1844, 1845, 1849, 1850, 1851 and 1852; while we have *not* those for 1846, 1847 and 1848. If any of our subscribers are willing to dispose of either of the last three, we will gladly give One Dollar per copy for them

The *Third Series*, beginning with 1853, we can supply in any numbers; and it offers an excellent opportunity to begin the purchase of a set, to which subsequent volumes may be added, as they appear.

Any of the above volumes, we will now send, as they belong to broken sets, neatly bound and postage *prepaid*, for $1.

A new volume of the Country Gentleman commences on the first of July, for which we solicit the kind offices of our friends. This paper is constantly increasing in reputation and usefulness, and we believe it is not too much to say that, in editorial ability, in the extent and value of its correspondence, as well as in its mechanical execution, it is unequalled by any similar journal in America.

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Ten copies,	8.00

For $4, we will send two copies of the paper and two copies of the Illustrated Register, or Liebig's Relations of Chemistry to Agriculture.

Illinois State Fair.—The managers of the State Ag. Society have entered upon the preparations for their State Fair, to be held at Chicago in October, with great energy, and a determination to make the exhibition worthy of the intelligent farmers of this great and flourishing State; and we are glad to see that the several rail-road companies are co-operating with the Society, and affording all the facilities in their power for the accomplishment of the great object in view. We learn by a letter from Dr. Kennicott, the energetic Secretary of the Society, that they have secured very favorable and most beautiful grounds for the exhibition, about 2½ miles from the center of Chicago, with abundance of shade and water.

It is announced in the Chicago papers that the President of the State Agricultural Society, has appointed Robert Kennicott, Esq., to take charge of collecting the specimens in every department of the natural history of the State, to be exhibited at the State Fair to be held in Chicago in October next. Of Mr. Kennicott and his designs the Chicago Press says;—"Mr. Kennicott is known to be a gentleman well acquainted with the subject committed to his charge, and zealously devoted to the cultivation of the science. It is his intention to visit the different parts of the State for the purpose of fulfilling the duties of his appointment, and we have no doubt he will be successful in collecting such a mass of specimens as will astonish many who have never turned their attention to this most interesting department of the productions and resources of our State."

The Address at Elmira.—Gov. Wright of Indiana, we are gratified to learn, has accepted the invitation given him, to deliver the annual Address at the ensuing fair of the New-York State Ag. Society. The statement, going the rounds of the papers, that Gen. Cass had been invited to deliver the address, is an error. Gov. Wright is, we believe, more of a farmer than politician, and is one of the most popular speakers in the "Great West."

Agriculture of Massachusetts.—We are indebted to C. L. Flint, Esq., for a copy of "The Agriculture of Massachusetts, as shown in returns of the Ag. Societies for 1854." It is a volume of much interest, abounding with the practical experience of intelligent farmers, and such a work as Massachusetts may well feel proud of.

Short-Horns.—Those in want of this stock, are referred to the advertisement of Dr. Wendell, who, it will be seen, offers for sale several fine young animals from his herd—among them a couple of bull calves sired by his imported bull Lord Ducie.

Gas-Lime.—A correspondent of the *Gardener's Chronicle* says—"At the recommendation of one of my neighbors I have applied to my lawn, lime from the gas works, mixed with sand and ashes from the kitchen grate, (coal ashes.) From this application I was led to expect a beautiful firm and green surface; but to my astonishment the grass is literally burnt up, and I fear completely ruined. It is the bituminous matter contained in the gas-lime which renders it so injurious to plants. It should be used only in composts of muck, loam, &c. It is indeed questionable whether it pays to use it at all, where lime and plaster are as cheap as in most parts of this country. It contains some fertilizing matter, but the deleterious effect of the bitumen pretty effectually neutralizes it. We know an English gentleman of high scientific attainments who took out a patent for the manufacture of a manure from the refuse liquor of the gas works. He obtained a manure which Professors Graham, Miller, Way, Ure, and other eminent chemists, pronounced superior to the best guano, and yet on trial *it was found to injure as much as it benefited the crops* to which it was applied. The ammonia and phosphates were there, and in an available condition ; but the bituminous matter which it was impossible to remove rendered the manure useless, and its manufacture we believe is given up.

The Crops —From all quarters the most cheering accounts of the crops are received. They were, very generally, beginning to suffer from drouth, but during the past week copious rains have allayed all fears on this account, and we may reasonably anticipate a bountiful harvest; and with a larger extent of land sown than ever before, with high prices and good crops, what can prevent great agricultural and national prosperity.

Putnam Co. Ag. Society.—The Officers for this year, are :

President—Thomas B Arden, Philipstown.
Vice Presidents—Leonard D Clift, Carmel; John M. Towner, Patterson; Coleman Townsend, Kent; James E. Kelley, Southeast; Ezekiel Hyatt, Putnam Valley; H. A. Pelton, Philipstown.
Secretary—G. Mortimer Belden, Carmel.
Treasurer—Saxton Smith, Putnam Valley.

Exhibition to be held at Carmel, Sept. 18th and 19th. Among the prizes to be awarded, are several from a "special fund" contributed for the purpose—one of $50, and another of $20, for the 1st and 2d best treatises on the " Defects in the present system of Farming in our County, and the remedies best suited for the same, and showing how our Farms can be made to produce the largest net income of which they are capable," to be written by a resident of the County, and to be read at the Fifth Annual Exhibition of the said Society.

We should be glad to see this example followed by every county in the state, as we know of no way in which a similar amount of money could be expended with as fair a prospect of so much benefit to the agricultural interest. The offer of such prizes would lead to a thorough investigation of the subject, and though some of the treatises might be of little value, many of them could not fail to prove of the highest importance. The facts collected, the errors pointed out, and the suggestions made, by from fifty to a hundred gentlemen from every part of the state, would give a striking impulse to agricultural improvement.

Great Sale of Short Horns.—The sale by public auction, of Mr. Tanqueray's celebrated herd of Short-horns, came off at Hendon on the 24th April. One hundred head of cattle sold for 7,447 guineas ($37,-532.88) thus averaging over $375 each—76 cows, heifers and calves sold for 5,610 guineas, averaging over $372 each ; and of these 24 were under 12 months old. 24 bulls and calves sold for 1837 guineas, averaging nearly $386 each, and of these 19 were under one year old.

The highest price obtained was for the six year old cow Oxford 11th, 500 guineas ($2,500) being paid for her by Mr. Gunter of Brompton. Mr. T. purchased her at Lord Ducie's sale, for 250 guineas. The next highest figure was for the two year old heifer, *Oxford 16th*, bought by Messrs. Morris & Becar of New-York for 480 guineas ($2,419.20.) The three year old bull, Duke of Cambridge, sold for 280 guineas to Sir C. Knightley. The yearling bulls Sixth Duke of Oxford and Barrington sold for 200 guineas each ; and a five year old cow, Hope, to Mr. L. Spencer, of New-York, for 200 guineas, and a yearling, Hopeful, for 140 guineas. Becar & Morris were large purchasers ; besides the 480 guineas cow, they obtained Minerva 2nd, 180 gs ; Victoria 26th, 160 gs ; Minervia 4th, 140 gs.; Iris, 90 gs.; Surprise, 80 gs.; Delia, 65 gs.; Louise, 34 gs. Brooks & Fuller, agents for the Livingston Co. (N. Y.) Stock Importing Company, obtained the yearling bull Governor for 60 gs.; and also the two year old heifers Camilla and Dorinda for 52 and 45 gs.

The *Mark Lane Express* says : "The " rage " or " fashion " was almost entirely confined to Mr. Gunter and to visitors from America and Australia. We believe the high biddings were chiefly if not solely, with these few." The high figures appear to have been confined to the Duchess of Oxford race of Short-horns. " Some of the first cows," says the *Express*," put up, went at mere butchers' prices ; while against these we have certain strains which only appear to increase in estimation every time they are offered. The question arises here, is this esteem or fashion to be justified ? We are inclined to believe it is, and that its value will always be recognized as long as it can be traced Nevertheless, few even of our best men, it seems, care to run up to anything like the lengths now attained. It is the export market after all that " makes " these wonderful sales. It was so at Tortworth ; and but for this at Hendon, too, Mr. Gunter would have had it all his own way. One secret of this, however, at least with our American friends, is that they buy in companies—a plan which in the end materially reduces the cost at which a district obtains the use of our best stock."

Chilian Guano Fraud —We have received a letter from T. S. Pleasants, Esq., the Guano Inspector in Petersburg, and editor of the *Southern Farmer*, in reference to the Chilian Guano Fraud. It appears that Messrs. Rowlett & Hardy, who sold the Chilian guano, had not the least idea that it was a fraudulent article, that it was consigned to them by a party in Boston whom they believed to be a gentleman of high standing, *and the actual importer of the article*, and that he had sent them an analysis of the Chilian guano which was deemed satisfactory We would give Mr. Pleasants' letter entire, but that we had, previous to the receipt of his letter, already in type, (p. 343) the substance of his remarks copied from the *Southern Farmer*. We had no intention of implicating Messrs. Rowlett & Hardy in this attempt to impose upon the farmers. We did not think our remarks could be so construed as to favor such a supposition.

Messrs. R. & H. are unquestionably honorable and respectable gentlemen, and we fully believe they had no knowledge that the article they were selling as Chilian guano, was a worthless compound. They were imposed upon by Mr. S. of Boston ; whether he, in his turn, was imposed upon by other parties, remains to be seen. Mr. S. may be the highly respectable gentleman he has been represented ; if so he will doubtless soon follow the example of Messrs. Rowlett & Hardy, and deny any knowledge of the nature of the Chilian guano. He can and ought to tell us who he got it from, and trace out the fraud to its source. Will he do it ?

☞ We learn from the *Scientific American* of June 2d, that the Messrs. Wheeler of this city, have secured the re-issue of the patent on their long and favorably known Endless-Chain Horse Power. It was originally patented in July, 1841.

Bots.—Will you, or some of your readers, inform me whether there can be anything done for a horse, when the bots *get so high*, that it is very difficult for the animal to eat or swallow any thing ; and what is the general treatment for horses laboring under such precarious complaints ?

Any information from some one of your numerous subscribers, would confer a favor on one who has lost a very valuable horse lately. A Subscriber. *Millbrook, C. W.*

For Blind Staggers—Pull out your knife and bleed freely in the mouth as soon as possible. B.

ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS *and Cultivator Almanac for* 1855. Albany: Published by LUTHER TUCKER, at the office of The Cultivator and Country Gentleman.

With an immense variety of useful suggestions on matters connected with agriculture, and illustrated by one hundred and twenty illustrations, the Annual Register cannot but be an acceptable companion for the year to the farmer. Its scientific information will cause it to be preserved, and after a few years the careful agriculturist will find himself in the possession of a valuable library of reference. The plans of tasteful and convenient country residences, and the suggestions for improvement and planting of grounds before the house, will tend to diffuse what has been hitherto too much wanting among farmers, a respect for ornament as well as profit, and a perception of the beautiful in addition to the useful. It is impossible to do more than allude to the various agricultural topics treated in The Register. The methods of transplanting, grafting and pruning fruit trees, dwarf and standard, the best arrangements of farm buildings and implements and the different varieties of stock are very satisfactorily discussed, with copious illustrations. When it is considered that all this can be obtained for only 25 cents, we should think that Luther Tucker and the office of The Cultivator at Albany would be run down by orders.—*New-York Daily News.*

☞ Mr. J. H. Tillotson has enclosed us $1 for our publications, without any date, or giving the direction to which he wishes them sent. Will he let us know his P. O. address?

GUANO ADULTERATION IN IRELAND.—At the last Council Meeting of the Chemico Agricultural Society of Ulster, Dr. HODGES, chemist to the society, gave a statement of the percentage composition, and estimated commercial value of the samples of guano, which had been analyzed in his laboratory during the year. The extent to which adulteration has been carried on, is beyond belief. *More than one half of* the samples analyzed were comparatively worthless. One lot, though it contained 14.68 per cent. of "organic matter and fixed salts of ammonia," was found to contain of actual or potential *ammonia*, less than half of one per cent., and Dr. HODGES estimates its value at £1.6 ($6.24) per ton. We may add that it contained 47 per cent. of carbonate of lime, and about 8 per cent. of salt and sulphates. We are not informed whether it was sold under the name of Peruvian or Chilian guano.

Maclura or Osage Orange Hedges.

H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants.

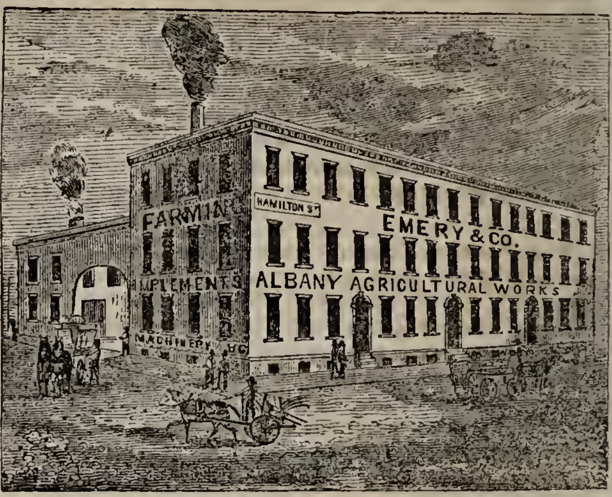
IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges, given to purchasers.

G. G. SHEPPARD, New-York—P. B. MINGLE, Philadelphia—BYRAM, PITKIN & Co., Louisville, Ky., wholesale Agents.

Apply as above. April 5—w2m2m

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—mly Braintree, Mass.



Albany Agricultural Works,

On Hamilton, Liberty and Union Sts.

WAREHOUSE, SEED STORE, AND SALES ROOMS

Removed to No. 52 State Street,

Corner of Green, opposite the City Bank, Albany, N. Y.

THE proprietors of the above named establishment being the sole owners and manufacturers of

EMERY'S PATENT HORSE POWER, &c.,

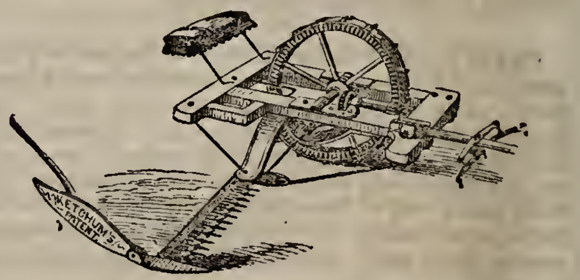
☞ All arrangements with other parties for their manufacture having expired. ☜ have formed a new copartnership under the firm name of

EMERY BROTHERS,

and will continue the manufacture and sale of AGRICTLTURAL IMPLEMENTS and MACHINERY as heretofore, at the old stands of EMERY & Co. By this arrangement the united efforts and interest of the brothers, long known to the public, are secured, and no exertions will be spared to meet the wishes of those dealing in and using the class of implements we manufacture. The public may rest assured, the reputation heretofore earned for our manufactures, shall be fully sustained, by using none but the best material and workmanship; and by a strict attention to business, we hope to merit and enjoy a continuance of the patronage heretofore so liberally bestowed, which we respectfully solicit.

Full descriptive illustrated price catalogues sent gratis on application. EMERY BROTHERS.

Albany, N. Y. June 21—w&m1t



Ketchum's Mowing Machine.

THE subscribers have made arrangements by which they have the exclusive sale of this celebrated Mowing Machine in and for Albany and vicinity. They will furnish them with all the latest improvements, and one extra set of knives, and the fullest warranty to work to the satisfaction of the purchasers, as follows:

For One Horse Mower, $95; for Two Horse Mower $115; with Reaper Attachment, $15 extra.

They also have a limited supply of *Forbush's Mowing and Reaping Machines* on hand, and can furnish to order *McCormick's, Hussy's, Burral's, Manny's and Wright's Reapers.*

All persons desiring *Mowers* or *Reapers*, and who can obtain them from this point, should order them early, to prevent disappointment, as the supply will be limited.

Full descriptive illustrated price catalogues sent gratis on application. EMERY BROTHERS.

June 21—w&m1t.

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No. 12 BROADWAY, NEW-YORK.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers, Reapers, Horse Powers and Threshers, Combined Threshers and Winnowers, and other Agricultural Machines.

May 24—m12t*

Emery's New Portable Grating Cider Mill and Press.

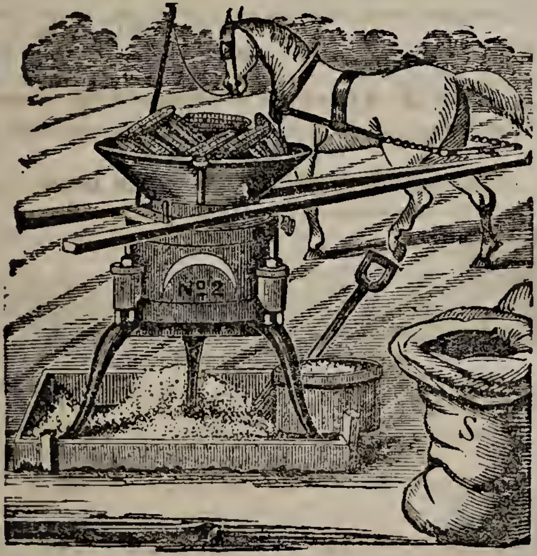
ONE great advantage of this machine over all others is, that IT WILL NOT CHOKE UP, and hard, soft or rotten apples can be ground, and yet the cylinder will always remain clear, in grinding order. It will make more Cider than any other Mill and Press, with a given quantity of apples in a given time, and with less labor and expense. It is the best press for Currants, Cherries, Berries, Cheese, Butter, Lard and Tallow. With all these advantages, it is sold at a price that is within the reach of all—warranted superior to any other in use, and fitted for horse and hand power. Price $10.

In next month's number we will give cuts with full description of the working parts of this mill.

Made and for sale at the Albany Agricultural Works, Warehouse and Seed Store, by

EMERY BROTHERS,
52 State Street, Albany.

June 21—w&m1t



Little Giant Corn and Cob Mill.

THE subscribers having made arrangements with the Patentee of the above celebrated Mill for their exclusive manufacture for this State, and their sale generally, offer the same to the farming public on the most favorable terms and warranty. The attention of stock feeders is especially solicited to this Mill, believing it to be just the thing so long wanting for the purpose intended.

Some 2,000 Little Giant Mills have already been sold the past season at Baltimore and Cincinnati alone; and so far as known have given universal satisfaction. Many testifying that their Mills had more than paid for themselves the first month; while others aver the regular use of the LITTLE GIANT for one week will more than save its cost in tolls alone.

This Mill has doubtless attained a more sudden celebrity for doing this work with extraordinary ease and certainty than any other article of labor saving machinery ever presented to the Agricultural world; the merit of which consists chiefly in the peculiar arrangement of first breaking, then crushing and crumbling the cob at the center of the mill.

These Mills are guaranteed in the most positive manner against breakage or derangement, and warranted to grind feed from ear corn, and grits or fine hominy from shelled corn, with a degree of ease and convenience for farm purposes never attained before.

For portability, simplicity of construction, and convenience of use, the Little Giant has no equal. It weighs from three to five hundred pounds, according to size, can be put in operation by the farmer in twenty minutes, without expense or mechanical aid, then adjusted and used with convenience by any body. Made and for sale at the

Albany Agricultural Works, Warehouse and Seed Store, by
EMERY BROTHERS,
52 State Street, Albany.

June 21—w&m1t.

Davy's Devon Herd Book.

NOW READY, a *large supply* of both first and second volumes, bound in one book, and containing all the subjects connected with the Devon Records, of both England and America, up to the present time. Also as a frontispiece, a beautiful engraving of the celebrated picture known as the "*Quartly Testimonial*," which is a full length portrait of Mr. Francis Quartly, now living at 91 years of age. It is also illustrated with two animals, prize winners in England. Price $1.00, and can be had by enclosing the amount to B. P. JOHNSON, Cor. Sec'y of N. Y. State Ag. Society, Albany, N. Y.; LUTHER TUCKER, Ed. of *Country Gent.*, Albany, N. Y.; Sanford Howard, Boston, Mass.; D D. T. Moore. Ed. of "*W. G. & S. Register*," Rochester, N. Y.; A. B. Allen, Ed. of "*American Agst.*," N Y.; Samuel Sands, Ed. of "*American Farmer*," Baltimore, Maryland; A. M Spangler, Ed. of "*Progressive Farmer*," Philadelphia, Pa.; Lee & Redmond, Eds. of "*Southern Cultivator*," Augusta, Geo.; and Wm. McDougall, Ed. of "*Canadian Agst.*" Toronto, Canada.

It gives me pleasure to state that Mr. Davy has solicited Mr. S. HOWARD, of *The Boston Cultivator*, to collect pedigrees and illustrations in this country for the 3d Vol., and has authorized Mr. H. to obtain information as to any and all mistakes which may have been made as to the recording of American animals in Davy's second Vol., and such corrections will be made in the third Vol. The plan proposed is that a copy of all the pedigrees and illustrations collected by Mr. Howard as the editor in America, shall be forwarded to Mr. Davy, and a copy of those collected by Mr Davy will be sent to Mr. Howard. The whole matter will be published in America for our use, and also in England for their use, by which means an American and English Devon Herd Book will be united, and the price reasonable, as the expense of English printing and duties will be saved. This concert of action has been brought about by Mr. Davy's good feeling and liberality towards this country, and I am only the instrument through which Mr. Davy acts, and from this time forth Mr. Howard will receive all communications on the subject, as will appear by reference to his advertisement.

All Editors who will give the above 3 insertions, will receive a copy of the 1st, 2d and 3d Volumes.

L. G. MORRIS.
Am. Ag't for J. Tanner Davy's Devon Herd Book.

June 7—w3tm1t

IMPORTED "MONARCH."

BY PRIAM, out of Delphine by Whisker, will stand at L. G. Morris' Herdsdale Farm, 1½ mile from Scarsdale Depot, and 24 miles from New-York by Harlem Railroad. Terms: $20 the season for mares not thorough-bred, and $50 for thorough-breds. Pasturage, $3 per month. Accidents and escapes at the risk of the owner. All business connected with the horse, to be addressed to "MONARCH'S GROOM, Scarsdale P. O., Westchester Co., N. Y." A portrait taken from life, with performances on the turf, full pedigree, &c. &c., will be forwarded by mail, by addressing

L. G. MORRIS,
Fordham, Westchester Co., N Y.

March 22

IMPORTED "BALCO," (9918.)

THIS celebrated prize Short Horn Bull, bred by Thomas Bates, Esq, Kirkleavington, England, imported and selected by Col. Lewis G Morris, the best breeder and importer of stock in the United State, will serve a limited number of cows on the following terms, viz., $20 the season for cows not thorough bred, and $35 the season for thorough-bred. The committee on Short Horns, at the fair of the New York State Agricultural Society, held at Saratoga Springs in 1853, speaking of this bull, says, "Your committee feel it their duty to recommend for special notice the imported bull "Balco," belonging to Messrs. Morris and Becar, an animal destined to prove a valuable addition to the Short Horns of the United States, and place that valuable breed on equal footing with any which the world can produce." "Balco" will be found at the farm of the subscriber, "Wilkinvilla," near Montgomery, Orange Co., N. Y., eleven miles from Newburgh.

Also the Young Bull "Corn Planter" will serve a limited number of cows on the following terms, viz., $10 for cows not thorough-bred, and $25 for thorough-bred. "Corn Planter" was bred by Col. J. M Sherwood, Auburn, N. Y. Pasturage for those who wish it, at a moderate charge. All accidents and escapes at owner's risk.

Pedigrees of "Balco" and "Corn Planter," with portraits from life, furnished on application to me.

JAMES W. WILKIN,
Wilkinvilla, near Montgomery,
Orange Co., N. Y

May 8—w8tm2t

The Excelsior Horse Power

HAS been very thoroughly tested in the presence of a number of mechanics and others, and pronounced a *very superior machine*. The fastenings or couplings for the Band wheel, &c , cannot possibly get loose, as is often the case with many other Powers, and it is warranted to do all the work any reasonable person can require of a Horse Power, *or the machine can be returned at the manufacturer's expense.*

This machine is manufactured exclusively by
RICH'D H, PEASE,
at the Excelsior Ag. Works, Warehouse and Seed Store,
Old Stand, 369 & 371 Broadway, Albany, N. Y.
June 7—w4tm1t

Horse Powers—Threshers—Eagle Fan Mills.

ALLEN'S IMPROVED HORSE POWER. It runs uncommonly easy, and does not require more than half the elevation at the forward end, of other Powers.

THRESHERS, both over and under-shot, made in a superior manner.

EAGLE FAN MILLS, *the best and cheapest Grain and Seed Separator made.* The superiority of this Fan Mill consists,

First—In cleaning without a screen. by separating the impurities, such as chess, cockle, smut, &c., by the blast alone, consequently saving the loss of the small sound kernels of wheat which must go through a screen.

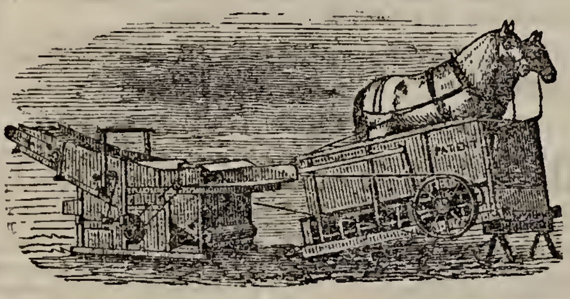
Second—An arrangement by which a part of the sound and perfect grains are separated from the rest for seeding, leaving the balance in a good marketable condition, so that the farmer need sow only such grain as contains the germ of growth.

Third—Smaller seed, such as grass and clover seed, are cleaned in the most perfect manner.

Fourth—Fans built on this plan will clean grain both in the first and second cleaning, faster and better than any others now in use.

Fifth—The cheapness and durability of its construction.

R. L. ALLEN, 189 and 191 Water-st., New-York.
May 17—w,24,26.28.30—m2t



G. WESTINGHOUSE & CO.

CONTINUE the manufacture of Threshing Machines Clover Cleaners, Wood Saws, &c., at Central Bridge Schoharie Co., N. Y.

We have improved our Thresher and Cleaner, (and for which we have obtained a Patent last year,) which works superior to anything of the kind in use, and has given entire satisfaction where used.

Our Horse-Power, Thresher and Separator, has the name of being the best machine in use, where known. Those wanting machines will be more likely to get them when wanted by ordering them early, as we shall not be able to make more than 100 of them this season. Last year we did not supply the demand by a large number, being unable to get them out in time.

Further information given on application by mail otherwise.

G. WESTINGHOUSE & CO.
Central Bridge, N. Y.
May 3—w22,24,26,28,30,32—m3t

A New and Improved
PATENT SCYTHE-SNATH,

MADE from *wrought iron*, light, firm and durable, and pronounced by very many who have used them for two seasons past, superior to any other Snath.

Manufactured only by LAMSON. GOODNOW & CO., (long known as makers of Lamson's Patent Wood Snaths,) and for sale at their Warehouse, No. 7 Gold-St., New-York, and by the Hardware and Agricultural trade generally, throughout the country. May 3—w1m2t*

Agricultural Books,

For sale at the office of the Country Gentleman.

TA-FEU,

A NEW FERTILIZER, manufactured from night-soil, which, after being screened, dried and disinfected, is raised to a certain standard by the addition of salts of ammonia. It is warranted to be composed of nothing but night-soil and the aforesaid salts of ammonia, as the chemicals used for disinfection add neither bulk nor weight to the composition. It is the intention of the LODI MANUFACTURING Co., who alone possess the right to this discovery, to make an article which can always be relied upon as pure and of a certain strength. It will be sold wholesale and retail, at $35 per ton of 2000 lbs., without charge for barrels or cartage, instead of which no tare will be allowed. A circular, containing testimonials of those who used an article something like, but much inferior in strength, made by us last season, will be forwarded by mail on application to the subscribers or their agents. Address

THE LODI MANUFACTURING COMPANY
No. 60 Courtland street,
May 31—w&m4m New York.

Only $48 per Ton.
NO. 1 PERUVIAN GUANO

CAN now be had at the

North River Agricultural Warehouse

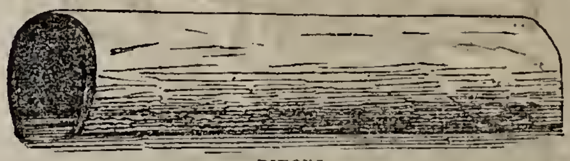
at the low price of $48 per ton For the benefit of farmers wishing to purchase this valuable manure, we would say that we do not keep the prepared, or No. 2 Guano. There will none but No. 1 Peruvian be found at our Warehouse.

GRIFFING & BRO.,
May 24—w8tm3t 60 Cortland-st., New-York.

Appleton & Alderson's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

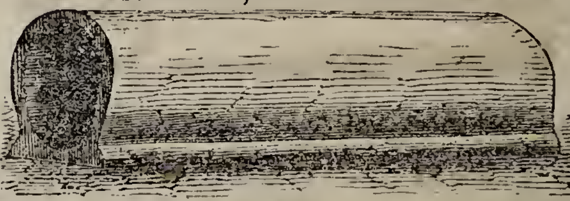
HORSE SHOE TILE, 14 INCHES LONG.



PIECES.

4½ inches calibre,	$18 per 1000.
3½ inches calibre,	15 per 1000.
2½ inches calibre,	12 per 1000.

SOLE TILE, 14 INCHES LONG.



PIECES.

4 inches calibre, at	$40 per 1000.
3 inches calibre, at	18 per 1000.
2 inches calibre, at	12 per 1000.

THE subscribers having enlarged their works, are now prepared to furnish Drain Tile of the various patterns and prices. Also Large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. We warrant our Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. MERCHANT'S, 71 Quay-st., Albany, near the Steamboat landing.

Full directions for laying Tile will be sent free to those addressing the subscribers.

We only need say that Appleton & Alderson obtained the first prizes for Tile at the Albany County, and N. Y. State Fairs. Practical drainers furnished if required.

Orders from all parts, will be thankfully received and promptly attended to.

Address APPLETON & ALDERSON,
195 Washington-st., Albany, N. Y.
May 31—weow&m5m

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

DISSOLUTION.

THE co-partnership heretofore existing between the subscribers, under the name and firm of H. BLANCHARD & Co, is this day dissolved by mutual consent. Either party will sign in liquidation.

HOMER BLANCHARD.
T. M. BURT.

Kinderhook, March 31, 1855.

NOTE.—All communications relating to the business of the old firm of H. BLANCHARD & Co., should be directed to Kinderhook, N. Y.

CO-PARTNERSHIP.

The subscribers have formed a co-partnership under the name and firm of H. BLANCHARD & Co. for the transaction of a Commission Wool business in the city of Hartford, Conn.

HOMER BLANCHARD, Kinderhook.
LAWSON C. IVES, Hartford.

Hartford, March 31, 1855.

CIRCULAR.

It is now ten years since the subscriber started the WOOL DEPOT system, it being the first attempt at a close classification of Wool in the fleece in this country; four years alone, and six years in company with Mr. T. M. BURT, who now retires from the business. His experience but confirms the position which was taken by the friends of this enterprise in its infancy; that there is no other system yet devised, which is so appropriate to meet the wants and necessities of the wool-grower, dealer or manufacturer, as the close classification of Wool in the fleece. The manufacturer can obtain the grade he wants, and the seller of Wool the relative value of each grade, quality and condition considered; thus affording facilities and encouragement for improvement.

The present location is not deemed by himself, and many of the friends and patrons of the Depot system, as favorable for effecting ready and quick sales as a more central one, easy of access, and in the immediate vicinity of manufacturing establishments. He has therefore formed a copartnership, as above stated, and will remove the Kinderhook Wool Depot business to the city of Hartford, Conn. There is annually manufactured within four hours' ride of that city, more than twelve millions pounds Wool; and within six hours' ride, more than one-half of all the wool worked by manufacturers in the United States.

The same system of classification will be continued as practiced at Kinderhook. Also the services of the same sorter retained. The same charges for receiving, sorting, storing and selling, viz: one and a half cents per pound and the insurance, when sales are made for cash as heretofore. In order to possess additional facilities for selling, sales will be made on time, when they can be more readily effected or better prices obtained, than for cash In all such cases where time sales are made, the payment will be guaranteed, and the usual guarantee commission of two and a half per cent. on the amount of sales, will be charged additional.

Advances will be made in cash or by acceptances, as may be agreed upon. Sacks furnished to consigners by charging 25 cents each for their use.

Thankful for the liberal patronage and confidence bestowed, the subscriber respectfully solicits a continuation of past favors, and confidently hopes, and firmly believes, that he can better promote the interests of his consignors by a change of location, than by remaining where he has formerly been.

H. BLANCHARD.

NOTE.—After six years' experience in selling Wool at Kinderhook, I fully concur in the propriety of H. BLANCHARD's decision to change his location, and remove the Kinderhook Wool Depot business to the city of Hartford, believing that the interests of our former consignors will be promoted, by making more ready sales, and avoiding the delays consequent upon our location, and to a rigid adherence to the cash system.

T. M. BURT.

REFERENCES.

George Beach, Esq., President Phœnix Bank; H. A. Perkins, Esq., President Hartford Bank; Messrs. Day, Owen & Co., Merchants; Messrs. Day, Griswold & Co., Merchants; Messrs. Collins & Brothers, Merchants, Hartford, Conn. Messrs. Hacker, Lea & Co., Merchants, Philadelphia; Messrs. Freeland, Stuart & Co., Merchants, New-York; Dr. J. P. Beekman, President Bank Kinderhook, Kinderhook, N. Y.

May 1—m3t

BLACK HAWK.

THE original VERMONT BLACK HAWK will serve a limited number of mares the coming season at $100 each.

Gentlemen wishing to secure the services of this horse, must send in their letters at once.

Good pasturing at 50 cents per week. All accidents and escapes at the risk of the owner.

DAVID HILL,
March 1, 1855—m5t Bridport, Addison Co., Vt.

Hay Presses, Hay Presses.

DEDERICK'S PORTABLE PARALLEL LEVER HORIZONTAL AND VERTICAL HAY PRESSES.

THESE Presses are so constructed that they can be taken apart at the manufactory, and (by the printed directions accompanying each press) put together again in a couple of hours by any two farmers, without the aid of a mechanic. They are so conveniently portable that they can be moved from one field or farm to another, as a sleigh is moved, by a pair of horses or oxen, and for convenience and power of operation they are altogether unequalled. They are now being shipped to all parts of the country, and are in every instance giving the most decided satisfaction. With two men and a boy to attend the horse, one of these machines will bale from 6 to 8 tons of hay per day, according to the No. or size of the press. Prices, from $130 to $175. For circular, with full description, apply personally or by mail to the subscribers.

DEERING & DICKSON,
Premium Agricultural Works,
May 10—w&meowtf Albany, N. Y.

ENGLISH CATTLE,

Imported on commission by Messrs. THOS. BETTS BROS., Bishop's Stratford, Herts, England—81 Maiden Lane, New-York City.

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
Short-Horned Cattle,
Devons, Herefords, Ayrshires,
Alderney Cows from Islands of Alderney and Guernsey,
Pure bred Southdown Sheep,
Hampshire Sheep,
Cotswold, Leicester do
Suffolk Pigs,
Essex, Berkshire do
Merino Sheep from Spain,
Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane.
Jan. 4—1am—m1y. New York City.

FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPER & Co., 41 Water St., New-York; Caleb Gasper, Esq., Marcellus, Onondaga Co., Geo Young, Esq., Milo Center, Elias Bently, Esq , Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N. Y., Judge Ellsworth. Pen Yan.

March 1—mtf—

Farm Lands for Sale,

IN LOTS TO SUIT PURCHASERS.

OVER 2,000,000 OF ACRES of Selected Prairie Farm Lands, belonging to the Illinois Central Railroad Company. The price will vary from $5 to 25, according to quality, location, &c. The purchase money may be payable in five equal installments, the first to come due in two years from date of contract, the others annually thereafter—giving six years to pay for the land, with a charge of only *Two per cent per annum interest.* The first two years' interest payable in advance. The Company's construction bonds received as cash. Apply to

CHAS M. DUPUY, Jr.,
Land Agent Ill. Cen. R. R. Co.
March 15—m6t* No. 84 Lake St., Chicago, Ill.

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DE BURG'S NO. 1

Ammoniated Super-Phosphate of Lime.

THE above valuable compound is warranted pure and genuine. The manufacturing department is under the personal direction of the subscriber, and will have studious attention as to his preparation at all times being uniform in its component parts. Many experiments during the past year, with the above brand, in equal quantity with Peruvian Guano and other concentrated Fertilizers, scrupulously testing its value as compared with the latter, by various State Farms, public Agricultural Committees, &c., have been made, showing a preference for it as a manure, both as to early inducement and prolificness of growth. Pamphlets will be sent on application to the subscriber, containing full directions for use, &c.

C B. DE BURG,
Sole Proprietor and Manufacturer,
Williamsburg, L. I.
June 14—w&mtf.

DOMESTIC ANIMALS

AT PRIVATE SALE.

L. G. MORRIS' ILLUSTRATED CATALOGUE, with prices attached, of Short Horned and Devon Bulls and Bull Calves, a few Horses, South Down Rams, Berkshire, Suffolk and Essex Swine, will be forwarded by mail (if desired.) by addressing L. G. MORRIS, Fordham, Westchester Co., N Y., or N. J. BECAR, 187 Broadway, New York. It also contains portrait, pedigree, and performances on the turf of the celebrated horse "Monarch," standing this season at the Herdsdale Farm. May 3, 1855—w&mtf

RURAL PUBLICATIONS.

THE attention of all persons interested in rural pursuits, is invited to the following publications:

THE COUNTRY GENTLEMAN—a Weekly Journal for *the Farm, the Garden and the Fireside*—forming yearly two large and beautiful quarto volumes of 416 pages each. Price. $2 00 a year. This is, beyond question, the best agricultural journal published in this country. Specimens sent to all applicants.

THE CULTIVATOR—a Monthly Journal for the Farmer and the Horticulturist, beautifully illustrated, and forming an annual volume of nearly 400 pages, at 50 cents a year.

THE ILLUSTRATED ANNUAL REGISTER of RU-RAL AFFAIRS for 1855, embellished with more than *One Hundred Engravings*,—1 vol. 12 mo. 144 pp.—price, 25 cents in paper covers—bound, 50 cents—*sent prepaid by mail.*

RELATIONS OF CHEMISTRY TO AGRICULTURE, and the Agricultural Experiments of Mr. J. B. Lawes, a new work by Prof LIEBIG, just published, price 25 cents—sent prepaid by mail.

☞ Specimens and Prospectuses sent to those disposed to act as Agents. Address the publisher,

LUTHER TUCKER, *Albany, N. Y.*

THORO'-BRED SHORT HORNS.

THE herd of the subscriber being now larger than it is desirable to retain, on account of the size of his farm, he wishes to dispose of five females, varying in age from three months, to nine years, all highly tinctured with Bates blood, and in other respects with the most desirable crosses for milk giving, as well as butter and beef making. Also five very fine young Bulls, two of which were got by the celebrated prize Bates Bull Meteor, (11811.) two by his own valuable imported bull Lord Ducie, and one by Eclipse 2d, also son of Meteor. They vary in age from six months to one year, and are out of some of the best cows of his herd, who are equal to any in this country. DR. HERMAN WENDELL.

June 14—w&mtf

Forbush's Improved

MOWER & REAPING MACHINE

IT has been in use for the last three seasons, and is considered the best Combined Machine in use. For sale by the American Mowing and Reaping Machine Company's Agent,

D. C MORGAN,
June 7—w6tm1t 34 Cliff-st., cor. of Fulton, New-York.

FORBUSH'S IMPROVED

Mowing and Reaping Machine.

THIS valuable Harvester can now be had at the *NORTH RIVER AGRICULTURAL WAREHOUSE.*

Persons wishing circulars with testimonials, can have them forwarded by addressing

GRIFFING & BRO.,
60 Cortland-st., New-York.

☞ The above Machine is warranted to cut from 10 to 15 acres of grass or grain per day. May 24—w8tm2t

For Sale Very Cheap,

A BOLT CUTTER AND TENONING MACHINE, both in excellent order. Inquire of

RICH'D H. PEASE,
Excelsior Agricultural Warehouse and Seed Store,
Old Stand, 369 & 371 Broadway, Albany, N. Y.
June 7—w4tm1t

THOMAS GOULD,

BREEDER of Durham and Devon Cattle, Leicester Sheep, Suffolk Swine, Madagascar or Lop-eared Rabbits, English Ferrets, Guinea Pigs, Choice and Fancy Poultry.

Jan. 18—w&mtf Aurora, Cayuga Co., N. Y.

Improved Superphosphate of Lime.

THIS superior article of Fertilizer may be had, put up in bags weighing 50, 100, and 160 lbs. each—price, $45 per ton of 2000 lbs.

A. LONGETT,
34 Cliff Street, Corner of Fulton
New-York.
April 26—w6tm2t

FORBES.
VAN VRANKEN. N.Y.

THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

Vol. III. — ALBANY, AUGUST, 1855. — No. VIII.

Gas Tar as an Antiseptic Paint.

The preservation of wood is a subject of great and increasing importance. In this country and in Europe, patent after patent has been taken out for various processes of accomplishing this object. Metallic Salts are generally employed, and afford, unquestionably, the means of increasing to a great degree the durability of timber. The high price seems to be the chief objection to their use, and especially to the use of corrosive sublimate.

To exclude the oxygen of the atmosphere is the first thing to be secured—decomposition cannot take place unless oxygen be present in some form or other. The albuminous matter of the sap, too, is a great cause of decay, and the more so, if in a moist state. It acts precisely as yeast in the fermentation of bread. If we boil yeast, its fermenting power is destroyed. By steaming wood we coagulate the albumen (white of egg) of the sap, and thus, to a certain extent, lessen its liability to fermentation or decay. The exclusion of the atmosphere and water, and the coagulation of the albuminous matters of the sap, or recently formed portions of the tree, are the two great points to be secured in the preservation of wood,—and, we may add, of almost every vegetable or animal substance.

The various metallic or mineral paints secure to a certain extent the former object, and a solution of a metallic sulphate the latter; and we would advocate the use of both articles to a much greater extent than is now practiced by most farmers. We hope to live to see the time when every wooden implement on the farm shall receive a good coat of paint every year. Such a practice *will pay*, now that good timber is getting scarcer and higher every year.

There is a substance, however, that to a certain extent, at least contains, in itself, both these qualities. *Gas tar* will coagulate albumen, *and* exclude the air and moisture. It is cheap and easily applied; why then is it not more generally and bountifully used? In England, hedges take the place of our not very picturesque Virginian fences, and the home-steading is of brick or stone, but the extent to which gas tar is used on the doors of buildings, gates, &c., affords conclusive evidence that, were board fences used, as with us, they would be preserved, if not ornamented with a frequent coat of this odoriferous paint. We do not recollect to have seen it used for this purpose, in this country, except on the magnificent farm of James S. Wadsworth, Esq., of Geneseo, N. Y., where it has been employed for many years in painting board fences, and proves to be all that its advocates claim.

It is said that the agents used by the Egyptians to preserve mummies were of an asphaltic nature, and though this perhaps cannot be clearly established, it is certain that asphaltic oils, such as exist in gar tar, possess powerful antiseptic properties.

In 1838 some sleepers were laid on the Manchester and Creive Railroad which had been saturated with gas tar. A short time since they were taken up, in order that they might be replaced by some of a heavier description, when it was found that the old sleepers were *perfectly sound*, and they are about to be used on parts of the line where there is less traffic. The unprepared sleepers did not last more than four or five years, and a similar case might be mentioned in this country.

An English scientific writer says: "A great many improvements in this country are stopped by the prejudice which people have against anything having the smell of gas." If this can be said of England, where gas tar is as extensively used as paint, &c., what shall be said of American farmers, who use little if any? He gives the following instance, which shows that a love of things "far fetched and dear bought" is not confined to this country, or the ladies. "For instance," says he, "pitch and other products of tar are highly important in ship building, yet, so prejudiced are the English ship-wrights against coal tar and pitch, that they will only use the tar and pitch from Archangel or Stockholm, though it costs ten times as much as the English. In the Mediterranean the native vessels which are not coppered suffer very severely from the worm, and the Maltese and Sicilians found that the Archangel and Stockholm pitch would not protect them, but with the coal pitch and tar no worms would touch the vessels, and there is, therefore, a great demand for the English pitch and tar in the Mediterranean, the boat builders of which would readily give more for it than for the vegetable pitch or tar; but there is a prejudice against it in England because it can be obtained cheaply at our very doors. In fact, all pitch and tar from the mineral kingdom is much better and stronger than that from the vegetable, and much more of a preservative." Is prejudice or ignorance the cause of the general neglect of gas tar as a paint and as a preventive of decay? The experience of those who have used gas tar on posts in the ground is, so far as we know, without exception, in favor of gas tar. We have met with one gentleman who thought that, while gas tar retarded the decay of timber in the ground, it accelerated its decay above the ground. We cannot think that there is any foundation for this opinion; if there is, we should be pleased to hear from those who are competent from experience to speak on the subject. We have many such among our readers. Will they not favor us with their experience in the use of gas tar?

◆

Keeping Roads in Good Repair.

That this is an object of much importance may be generally conceded, so long as men merely *talk* about the matter; but it seems to be otherwise when they are called upon to *work*, if the reluctance, indifference, shirking, and dislike to that duty upon the public highways, may be taken as indications of the real state of sentiment existing on the subject. The indifference which many display in regard to keeping roads in good repair, and their unwillingness to do their proportion of work upon the public highways, have often been matters of surprise, and sometimes of philosophical speculation upon some of the dark and profound mysteries connected with human nature. We have sometimes wondered if selfishness—total absorption in one's own interest, and total indifference to the interests of others—could ever be indulged to such a degree as to become wholly blind and even suicidal. It has seemed as if no other inference or hypothesis were admissible, when we have seen men neglect to repair some little defect in the road near their premises, which they had to suffer from every day, and which might have been rectified in an hour or two, or less sometimes, just because others would derive some benefit from it as well as themselves. For months and months we have seen farmers plunging through rough, racking and muddy places, with injury to wagons and harness, when a very little work would have removed the whole difficulty and the cause of it. But then others would have been benefited by their work as well as themselves, and therefore, though right in sight of their own windows, and though passing it several times every week, the ugly obstruction which had broken reaches and thills, and been the dread of many a traveler, stands unrepaired for months to the disgrace and inconvenience of a whole neighborhood, and especially of him who lives close by it. If the selfishness which prevented the needed repairs in such a case is not *truly blind* to its own interest and is not *suicidally* destroying itself, then our philosophy of the matter must be somewhere at fault. For the persons living nearest the bad spot would have been paid for all the little labor necessary a hundred fold, by saving of suffering and of loss of wear and tear of wagons and harness; and yet they submitted to it for months just because some others would have received a *little* benefit, even though they would have secured to themselves *many times more.* This is truly an astonishing exhibition of selfishness and perverted and depraved human nature.

But we took pen in hand to record a case which demonstrated most impressively to one neighborhood the great value of good roads, or of keeping roads in good repair. A gentleman from the state of New-York visited some of the Western States, during the spring months, and in one of them found a farm which exactly suited him, as he thought. From a village at a distance of a few miles, where he was staying, he had occasion to go out several times to look more particularly at the farm and fixings, and to talk over the proposed purchase. The road was bad in several places at first, but every time that he went over it, it seemed to be in a condition still worse than before. This had such an effect upon him that he gave up all thoughts of purchasing a location, in every other way suited to his taste. He argued that beside the *discomfort* of such a road, which was no small matter to him, it would inflict upon him many positive losses. He foresaw there would be many days in the course of a year when he could not travel it all, at least with any load or any comfort; and that there would be days when he could not carry his family to meeting as he might on a better road. He foresaw, too, that he never could carry off as much of a load of grain or wood or anything else as he could on a better road, and that the tear and wear, or damage, in the matters of carriages and harness would be much more than on a road kept in better repair. If this does not demonstrate that farms are *more valuable* for good roads near them, then the attempt to teach this much needed lesson may be given up in despair.

◆

A Screw Stump Puller.

Eds. Country Gentleman—In your valuable paper of May 10th, Oneida, of New-York Mills, inquires about a Stump Machine. Being a miller, and often having occasion to raise heavy bodies, and having found my hoisting screw to be a most valuable power, it suggested itself to my mind it would make a valuable stump machine, by the addition of a strong bench to attach the screw to; and if more power was required, a strong lever could be added, and the power increased to any amount that would be required. The cost of screw, at Hart & Munson's, Utica, would be $10. Having read the Cultivator and Country Gentleman from their commencement, I have never to my recollection seen the screw power recommended as a stump machine. O. Stevenson. *Stevenson's Mills.*

◆

Sandy Soils.—Improve, permanently, your sandy soils, by hauling on and spreading as much clay as will change their constitutional texture, and give them that cohesibility, the want of which is the radical cause of their unproductiveness. This labor may be performed at intervals of leisure, and with almost equal facility at all seasons of the year.

Deep and Shallow Plowing.

Messrs. Editors—In this age of agricultural improvement, to advocate *shallow*, in preference to *deep* plowing, is an analogism to be closely scrutinized before adopted. But, says the writer in the Country Gentleman of May 24th, "facts are stubborn things," and so they are; and by facts in his own practice, he establishes a plausible theory, that it is better to plow four inches deep than seven or eight, even on a soil of coarse sandy gravel,—a soil of all others supposed to be peculiarly adapted to deep cultivation, particularly in seasons of drouth, as the last three summers have been, and the present threatens to be. Mr. Brewer assures us that he shall resume the subject; I shall wait with interest for a further development of both his theory and practice; and in giving us these it would be gratifying and instructive to go more into the merits of the two kinds of plowing prospectively. If I can be convinced that the old method of surface cultivation is really the best and most profitable, although it is an exploded notion and mostly abandoned by improving cultivators of the soil, I will return to it, and thousands of others will do the same, for we Yankees are very apt to count the cost, and a great saving of expense in labor of team can be realized thereby.

Mr. Brewer speaks only of the crops that immediately followed the plowing, and here I think he is in error. He does not test the deep plowing for a succession of seasons. No doubt when the plow goes four inches deeper that ever it has done before, it throws up a new and colder substance, and it requires more than *one* season's exposure to the atmosphere to perfectly assimilate it to the wants of the growing plant; but follow it from year to year, gradually, say two inches deeper at each plowing, until you get a soil from four inches to twelve if you please. The summer's suns and the frosts of winter will do the work on these dormant stratas, and the results of fifteen years of this kind of cultivation will far exceed in profit the old method of shallow plowing, and surface cultivation.

Again, this deep plowing is better, either in a *wet* or in a *dry* season. In a season of drouth the moisture is retained in the broken earth, and the roots of the growing plants are sustained much longer than though the earth had been stirred but 3 or 4 inches; and in a season too wet, the surplus of water is not held so near the surface to the detriment of the crops, but the hard-pan being broken, it lets the water fall lower into the earth, and enables the growing crop to escape in a greater degree the drowning effects of a surplus of water.

I do not say that this deep plowing is best for *all* kinds of soils. There are lands naturally wet and heavy, stiff and clayey; I am not prepared to say how deep plowing would operate upon these. There are lands with an underlaying of quick sand; where this sand comes near the surface we should avoid striking it with the plow, for there is no vitality in it, and it should not be mixed with the cultivated soil. But there is not much land in the northern states, which has been cropped long enough to lose its first natural elements of fertility, or as the writers say, "its virgin fertility," but what can be greatly improved by deep tilling. This is my theory; and a theory too, which I believe is well sustained by practice.

Twenty years ago last April, I purchased the farm on which I now reside; the cultivated portion is an alluvial soil on the Connecticut river, and the average yield of crops to the acre at that time, was ocrn 35 bushels, oats 30 bushels, hay three-fourths of a ton, and other products in proportion. In plowing I soon found it a very pleasant task both for the team and myself, as there were no obstructions, no stones, stumps or roots; the plow would glide along about 4 inches deep, as smoothly as though the under strata was a plank road. Shallow plowing was then in vogue, but it occurred to me that in my case, where the under strata was the same as at the surface, *alluvion*, made by the action of the river centuries ago—no hard-pan except an artificial one, beat down and hardened by many years of surface cultivation,—that to break into this under crust might not prove an injury. I commenced by plowing 6 inches deep instead of 4 inches, using plaster, ashes and lime upon the grain crops, and stocking to grass. When I came round to take up this piece again after 4 or 5 crops of hay, I run the plow again 6 inches deep, but before stocking to grass again, at the second and third plowing, I run the plow first 8 and then 10 inches deep, taking three crops of grain, always manuring heavily for corn, and sowing, broadcast, plaster upon the grass lands. Latterly for the last grain crop, I have run the plow to the depth of 12 inches. I have now obtained a soil of 10 to 12 inches, a rich dark loam, which a severe drouth but slightly effects, and a wet season like that of 1850, does not injure. Where corn is planted upon the inverted sod and the manure spread upon the top before breaking the sod, it should not be plowed over 6 inches deep, but this is not the best way to raise corn on my lands; oats are the first crop, corn the second; the manure spread broadcast at the rate of 40 ox-cart loads to the acre; using one of the deep tillers of the Eagle class of plows, manufactured by Ruggles, Nourse & Mason, (in my judgment the best now in use,) with a short mould-board and high in the standard, it breaks and pulverizes and mixes the under soil, decayed sod and the manure, most admirably, which, with a thorough application of the double harrow before planting, makes one of the richest and finest tilth for corn that can possibly be obtained.

I have given the average yield of crops upon my lands before this system of deep cultivation was commenced. I will now state what I deem to be the results of this change from shallow to deep plowing, aided to be sure by other thorough cultivation, a judicious routine of crops and the appliances of the specific or stimulating manures in a moderate degree. For the last seven years my corn crop has averaged to the acre, from 75 to 80 bushels, in fields of 5 to 12 acres; and the two last years the heaviest growth was over 100 bushels to the acre. One field of seven and a half acres, in 1853, measured one hundred and five bushels to the acre. The oat crop has ranged from 60 to 80 bushels to the acre, and the hay crop from two to three tons, the first and second crops after stocking being quite too coarse and heavy for profit—that is, a less quantity and better quality would be more profitable; yet I like to see my barns full in autumn, and in order to get the desirable crops of hay for the last three or four years of mowing, the first must necessarily be too heavy. Experience is said to be the best instructor, and I believe it; and in view of what I have learned from this source, I cannot but repeat what Mr. Brewer says—the man who writes for an agricultural journal must always say, "*plow deep*"—it may not enhance your crops the first or second year, but follow it, and in a reasonable time you will find your account in it with interest and profit. J. W. COLBURNE. *Springfield, Vt., June 4th*, 1855.

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Deep Plowing—Guano, &c., on Wheat.

There is quite a controversy in some of the agricultural papers about deep and shallow tillage. That depends wholly on the subsoil. A few years ago I had some 800 oak and black walnut stumps pulled; many of them brought up earth from four to six feet deep, and from ten to seventeen feet square on the surface. The first year after the stumps were pulled, I put the field in wheat. Where the stumps stood, the wheat was not so good as the other part of the field, but it is again in wheat now, and I never saw any such wheat as is on the places where the stumps were pulled. You can see where every stump had been; the wheat is all of ten inches taller, stands far stockier on the ground, and looks as if a load of barn-yard manure had been laid down and not half spread, and wheat sown on it; the straw is stiff and bright. If so much had been raised by manure, the straw would have been soft and all flat on the ground before this. It is proof positive that deep tillage is every thing for *my* land.

I last fall put a ton of guano on ten acres, (not in the field where the stumps were pulled,) of wheat—that is, I sowed the guano, plowed it under, and sowed the wheat. I gave it a fair chance, sowing the guano on alternate lands through the field. From present appearance, I think it will pay. I also tried a ton of "Ta-Feu," (night-soil dried and deodorized,) but I have lost cost and trouble by that. If my guano wheat pleases me as well at harvest, I will try a few tons this fall. My wheat ought to be ready for harvest by 10th July, if the weather proves favorable, but the straw will be very large, and unless the weather is warm and dry it may be longer in ripening. In two weeks we may expect the wheat midge to make its appearance, if we are to have it, but I hope we may have nothing to destroy the crop this season, as every eatable is at famine prices. You may expect to hear from me again about the commencement of harvest.

JOHN JOHNSTON.

Near Geneva, June 8.

Medicinal Effects of Saleratus.

In the *Boston Medical and Surgical Journal*, not long since, Dr. ALCOTT published a paper, attributing much of disease and death to the free use of saleratus, which article he places in the list of irritant poisons. Mrs. STOWE, in her "*Sunny Memories*," attributes the sicklier appearance of American ladies, when compared with the English, to the same cause. These opinions have been copied into almost every newspaper and periodical in the country. The people, always afraid of poisons, whether medicinal or dietetic, have taken the alarm and are indeed in a quandary between sour bread and saleratus.

There is much of false reasoning in the world, and we regret to say the medical profession is not wholly free from it; arriving at false conclusions and awakening false alarms. Dr. Alcott says that two-fifths of all that are born, die before the fifth year, one half of which mortality he attributes to saleratus. Now if this be so, it is worthy of the candid consideration of every man and woman in the country, and its prohibition a fit subject of legislative enactment. But we opine it is not so;—that the danger, to which Dr. Alcott turns alarmist,—exists only in his imagination. Admitting the proportion of infantile mortality to be as stated, full *one half* of all that die under five years of age do so before the completion of the *first* year, most of whom have never eaten bread or taken saleratus. During the last three years, in the city of Philadelphia, the number of deaths, during the first year of of life, was 8,259, while during the next four years, or between one and five, there was but 6,794, or on average of 1684 for each yearly period. Hence, it will be seen that infantile mortality is nearly *five times* as great, during the first year of life, when no saleratus is taken, as during the subsequent four years when more or less of that article is eaten. Now, if we admit the influence of saleratus at all, we must acknowledge that influence salutary; for infantile mortality is only one fifth as great, when used as before. It must be admitted then, that saleratus stands acquitted of the charge, which Dr. Alcott brings against it. The excessive mortality among children depends upon other causes, which it is not our purpose here to consider.

It is difficult to define a poison, so as to give it proper restrictions; suffice it to say that *common salt* belongs to the same class, and is an *irritant poison* in the same sense in which saleratus is said to be so, and is capable of producing death when largely taken; yet, it is necessary to human health, and an indispensable constituent of human organization. Half a teaspoonful of saleratus, properly diluted, can be taken at once, and even more, without injury; passing, as it does, rapidly out of the body by the various secretions; yet this quantity is sufficient for raising bread made from two pounds of flour, which bread is sufficient for a meal for ten persons. Hence a person might get, at a meal, the small quantity of three or four grains; but when it is considered that this amount, small as it is, is nearly or wholly neutralized by the acid developed in the process of fermentation, we can but express our surprise that men or women of intelligence should attribute to it such disease and death-dealing consequences.

The culinary art is indeed in a deplorable condition, and our dietetic indulgences are doubtless the source of much suffering and disease; but, we apprehend, a culinary reform must commence elsewhere than in striking out the antacids. Dr. Drake, in his valuable work upon the diseases of North America, when speaking of the causes of disease, says, "when the dough for leavened bread, by excess of panary fermentation, has been charged with acetic acid, that product is not generally sufficiently neutralized by saleratus or soda, but the bread is eaten sour."

The excessive mortality of children in this country is indeed lamentable, but it is less in this country than in Europe, where Mrs. Stowe says less saleratus is used than here; and the poor health of adult females is a matter of regret, but its cause must be sought elsewhere than in our greater consumption of antacids. It is only by that love for hobby-riding, which is quite too common, that war is waged upon saleratus, for its dangerous properties exist wholly in the imagination. O. C. Gibbs, M. D.

The Sheep Exhibition at Bath.

We give below the list of Premiums awarded by the "Wool Growers' Association of Western New-York," at their late Show at Bath. The number of sheep on the grounds is stated to have been about 300. At a meeting held on the evening of May 30th, it was resolved that the next Annual Show be held either at Penn Yan, Canandaigua, Avon, or Batavia, and the following list of officers were elected:

President — Hon. G. Denniston, Prattsburgh, Steuben county, N. Y.

Vice Presidents—Heetor Hitchcock, Livingston Co.; W. T. Remer, Yates; Jno. D. Patterson, Chautauque; G. H. Wheeler, Steuben; T. C. Peters, Genesee; Thos. R. Peek, Ontario; H. T. Brooks, Wyoming; Rawson Harmon, Monroe; Chas. Morrell, Tompkins; Amos Perrin, Alleghany; James H. Hotchkin, Steuben; Matthias Hutchinson, Cayuga; Gardiner Gould, Orleans; Lewis F. Allen, Erie; Hiram McCollum, Niagara; Albert G. Perey, Wayne.

Corr. Secretaries—Wm. S. Judd, Penn Yan, Yates; A. Y. Baker, Urbana, Steuben; N. B. Mann, Livingston; Wm. A. Cook, Lima, Livingston; W. T. Remer, Penn Yan; Jas. Lyon, Bath, Steuben; Wm. B. Pratt, Prattsburgh, do.

Treasurer—Hon. Reuben Robie, Bath, Steuben Co.

Rec. Sec'y—Charles D. Champlin, Urbana, Steuben Co.

PREMIUMS AWARDED.

Class First.—Sweepstakes pen, Calvin Ward, Richmond, Ontario Co., $75.

Best Buck over 2 years old, Wm. Baker, Urbana, Steuben, $50; 2d, Julius Stickney, Shoreham, Addison Co. Vt., $40; 3d, Joshua Healy, Dannsville, Steuben, N. Y., $30; 4th, Levi Gray, Wheeler, Steuben, $20; Calvin Ward, $10.

Class Second.—Best 5 Ewes and lambs, Joshua Raplce, Penn Yan, Yates, $30; 2d, Orlando Shepard, Urbana, Steuben, $20; 3d, O. F. Marshall, Wheeler, Steuben, $10.

Best 5 Ewes, 2 years old, Wm. Baker, Urbana, $20; 2d, Calvin Ward, Richmond, $15; 3d, G. H. Wheeler, Wheeler, Steuben, $10.

Class Third.—Best 5 Ewes 1 year old, Thos. R Peck, West Bloomfield, Ontario, $20; 2d, Calvin Ward, Riehmond, $15; 3d, Grattan H. Wheeler, Wheeler, $10.

Class Fourth.—Best Buck 2 years old, W. T. Remer, Penn Yan, $30; 2d, Julius Stickney, Shoreham, Vt., $20; 3d, Orlando Shepard, Urbana, $10.

Best Buck 1 year old, W. T. Remer, Penn Yan, $20; 2d, E. F. Leeeh, W. Bloomfield, $15; 3d, A. Y. Baker, Urbana, $10.

Class Fifth.—Best Ewe, Joshua Raplee, Penn Yan, $10. Best 3 Ewes, P. F. Myrtle, G. H. Wheeler, Orlando Shepard, $15.

The Chinch Bug.

Christy's Prairie, Ind., May 26th, 1855.

Mr. Tucker—I send you a few specimens of the *corn fly*—the most destructive insect that has ever appeared in this part of the country. If they come to hand alive, I would advise you to keep them close prisoners; for they increase very rapidly, and you might have more of them on hand than you would desire.

I had purposed writing to you, to make some inquiry respecting this insect; supposing, of course, that it was well known through the country, and especially to editors of agricultural papers. I was told, however, a few days ago, by the Rev. T. Lowry, of Park County, that he had written to you on this subject, and was informed that it was the first time you had heard of the existence of such an insect. The name he gave it, if I mistake not, was the *corn chinch*, the same that it has sometimes been called by here. In North Carolina, where it is said to have existed many years, I am told that it is called the *chinch bug*. But I would consider no name more appropriate than the one I have given it, the *corn fly*, as it is properly a fly, not a bug; and commits its ravages on all kinds of corn that grow here, wheat, rye and oats, as well as maize. It also attacks some of the more succulent grasses, particularly the annuals.

In the latter part of May, it commences breeding. At what precise time the young swarms may first be seen alive, I am not able to say, nor can I tell whether they are produced in successive swarms, through the season, or not, but judging from the myriads that appear soon after wheat harvest and the apparently regular increase of their numbers, as they spread over large fields of maize, especially in dry seasons, it seems probable that they are produced in regular succession through the entire season.

The first time they were ever observed in this vicinity, so far as I have been able to ascertain, was nine years ago last summer. They were seen in a cornfield, about three miles from this place. They appeared to come from the stubble of a wheat field that bordered on the corn. They did but little damage. A few successive days of rainy weather put a stop to their progress, and nothing more was seen of them, that season. Two years later, they appeared on the farm of one of my neighbors, about half a mile distant. They came apparently, as before, from wheat stubble, though none had been observed in the wheat while growing; and they began on that part of the corn adjacent to it. But few appeared at this time, and not much damage was done. In 1851, I observed them for the first time, on the farm where I now reside. The field in which they made their appearance had corn on one side and oats on the opposite side, with a strip of wheat between They were seen immediately after the wheat was cut, on the rows of corn next to the stubble; and were so numerous, as to cover from one fourth to one half of the stalk, in many of the hills. The corn soon began to wither. They did not devour the solid parts of the plant, but pierced the outer part, or skin, full of holes, or destroyed it in large patches, here and there, over the stalk, and appeared to feed on the juice. A few rows next to the wheat, were completely destroyed. The crop was more or less injured to the distance of about eight rods from the stubble. On the opposite side, the oats were killed to the distance of two or three rods from the wheat. The remainder ripened without injury.

They appeared again the next year, and about the same time of the year; but did little damage.

Strange to say, it had not yet entered my thoughts, that they had done, or could do, any damage to wheat. The next spring, (1853,) my wheat looked unusually promising. I knew the wheat fly was found in it the fall previous, and expected it would suffer some injury, but little expected it would have to encounter a more destructive enemy in connection with this. When it had grown to the height of a foot or more, I observed that more than half of it had stopped growing. This portion was only six or eight inches in height, and it grew no more, but withered and died; from what cause, I could not imagine. The same fly appeared again in the corn, after the wheat was cut. The rank growth of the corn, together with one or two heavy showers, prevented it from doing much injury.

Last summer, there was the same appearance in the wheat, as the summer previous. A part of it dwindled away, after it had grown to the height of a few inches. At the time of cutting the wheat, these insects were observed, in motion towards the corn, which was close by. In a few days, the corn nearest to the stubble, was so covered with them, as to appear, at a little distance, as if covered with black paint. The corn was backward and dwarfish, and the season excessively dry, both of which circumstances favored their destructive effects. About fifteen acres of corn was destroyed by them. They swept over about forty acres more, some parts of which were nearly destroyed, others only slightly injured. One of my neighbors, had twenty-six acres of corn completely destroyed by them last summer, and fifty acres more greatly damaged. There was not a cornfield on the prairie, in which the crop was not greatly damaged. I do not know that they have ever been seen in this region, anywhere else than on the prairies, till last summer. Then, they were seen on farms formerly covered with timber, many miles distant from any prairie.

The attention of people here, was so thoroughly called to this insect, last summer, that when it appeared this spring, it was readily recognized. It was first observed on fences, or flying about, and alighting here and there, like other winged insects. Soon it was found about the roots of wheat,—then in oatfields, and in timothy grass. Wherever it has been seen among grain or grass, some of the blades were seen to turn yellow, and the growth to be checked, or stopped entirely; and in many cases, the whole plant completely killed. Probably, not less than one third of the wheat crop, in this vicinity has already been destroyed by them; and their destructive operations are still in progress.

The reasons why they have not before been observed in the early part of the season, are these. In the first place, they have never before been so numerous in the spring season, as at present. And next, when in wheat they are usually partly or entirely concealed by the blades near the root; and would not be likely to be distinguished from other insects without close observation. E. C. SMITH.

Comments on the above by Dr. A. Fitch.

MR. TUCKER—The facts which are embodied in the communication from Mr. SMITH, of Indiana, are deeply interesting, and well merit insertion in your widely circulated publications, as they form a valuable addition to what is already upon record, respecting one of the most pernicious insects in our country. Some notices of this same insect, from correspondents in North Carolina, may be found in the early volumes of the Cultivator, and valuable articles relating to it, from the pens of Dr. LE BARRON and others, may be met with in recent volumes of the Prairie Farmer. As the specimens in the quill forwarded by Mr. SMITH show, it is the same insect which, in an excursion through Northern Illinois, last autumn, I found in myriads, over a large district of country; and from all quarters, I received accounts of its destructiveness, of much the same purport as is given in Mr. SMITH'S communication. As soon as I obtain leisure, I will prepare a description and history of this important insect, for your readers; and therefore, I merely observe at present, that it is the insect which is generally known by the name of the CHINCH BUG—not Chintz, as the word is sometimes erroneously spelled. I have searched my library in vain for information as to the derivation and import of this word—Chinch. Webster supposes it to come from the Latin name for a bug, *cimex*, through the Italian *cimice*, but this appears to me to be rather far-fetched and doubtful. In Dr. HILL'S Decade of Curious Insects, published in 1773, a species of Thrips is described under the name of the Straw-colored *Chinch*. And if any one under whose eye these remarks fall, is sufficiently versed in philology to throw any light upon the origin of this word, we shall be happy to have him do so; for, in connection with this insect, it has become current in our country, and will thus be perpetuated.

Though the name Chinch bug is generally applied to this insect, it has obtained other names in particular localities. All over North-western Illinois, they have been called Mormon lice, in consequence of their having come into that section about the same time that the self-styled Latter-day Saints commenced their settlement at Nauvoo, many ignorant people firmly believing they were introduced there by these deluded fanatics. And it appears from Mr. SMITH'S letter, that in his vicinity, this insect is called the Corn fly. This name, however, Mr. SMITH himself will be aware, when he reflects further, is by no means so appropriate for this insect, as he supposed at the moment of writing. The name "fly" properly belongs only to insects with clear and glass-like wings, like the common house-fly; while the name "bug," although it is in this country currently applied to almost all insects, strictly belongs only to those which pertain to the Order *Hemiptera*, which embraces all those flat-backed insects which have a slender, sharp-pointed beak, for puncturing and sucking the fluids of those plants or animals which they infest—such insects as the common squash or pumpkin bug, and that disgusting object which at one time and another has obtruded itself upon the notice of every person in our land, the bed-bug. The species under consideration, moreover, exhales the same disagreeable odor which is peculiar to the insects of this group. There can, therefore, be no more appropriate name for it, than that by which it has been so long and so widely known—that of *Chinch Bug*.

This insect was first scientifically described by Mr. SAY, in a pamphlet upon the North American insects of this Order, published at New Harmony, Indiana, in 1831. He described it under the name of *Lygæus leucopterus*, i. e., the *white-winged Lygæus*. Since that time the genus *Lygæus* has been cut up into quite a number of new genera, and I am not aware that it has ever been published, to which of these our insect pertains. It belongs to the genus *Micropus*, proposed by the French entomologist, M. SPINOLA, in his Essay upon Hemipterous Insects, published in 1840, page 218. This name, derived from a couple of Greek words, meaning *small-footed*, has allusion to the legs of these insects, which are not long and slender, and the hind pair in particular are no longer than the others, contrary to what is generally the case in the insects of this group. *Micropus leucopterus*, therefore, is now the correct technical name of the Chinch bug.

It is a singular fact, and one which shows that the science of entomology is of almost endless extent, that in those parts of Europe, where for several generations a host of collectors and men of science have been assiduously engaged in gathering and describing every insect which those countries contain, new species continue to turn up almost every year. Even in the environs of the city of Paris, which may be regarded as the head-quarters of this science, and where almost every inch of the ground has often been examined with the greatest care and the most searching scrutiny, my esteemed friend and correspondent, Dr. Signoret, has recently discovered a new insect, which, from the specimens he has been so kind as to send me, I find to be almost identical with the chinch bug of this country. This species he proposes to name the *Micropus Spinolæ*, in honor of the distinguished entomologist who founded the genus to which it pertains, and who has done so much to elucidate this important Order of insects. In view of such facts, who can refrain from devoutly exclaiming with the inspired Psalmist, "How manifold are thy works, O Lord!" And what an amount of close observation and patient, persevering research will it require to render our knowledge of the insects of our own country tolerably complete. Asa Fitch. *June* 4, 1855.

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The Chilian Guano Fraud.

The following letter, had it been sent direct to us, would have been published on the 14th inst.; but having been enclosed to a gentleman of this city, it failed to reach us in season for an earlier insertion. We hope our readers will give it an attentive perusal. It is a most remarkable letter. It was, we suppose, intended as a vindication. But it is a confession—such a confession as we had not anticipated receiving from one of the parties engaged in this transaction.

Boston, June 7, 1855.

To the Editors of the Country Gentleman:

My attention has been called, and I last evening for the first time saw several articles published in your paper in reference to what you please to term fraudulent Guano.

I beg to inform you the article marked "Chilian Guano," is simply a mixture of Mexican and Peruvian guano, in about the proportions of three-fourths of the former and one-fourth of the latter, with 2 to 3 pr. ct. of sulphate of ammonia added. This is the whole extent of the fraud, if you can make it one. The price of Mexican guano is $25 per ton—that of Peruvian every one knows. The mixture I have authorized sold at $35, and am satisfied that every one who has bought it, has got an equivalent for his money, and further, will find by his results he has not been defrauded.

I was induced to have this mixture made from two motives. Last season several parties who applied Mexican and Peruvian guano, in the proportion of two-thirds and one-third of the latter, reported better crops than where they used Peruvian guano along side by itself. Again, many farmers think a guano that has no smell, like the Mexican, is worthless, and will not buy it from its want of it. In this way they would learn to use and appreciate it after they had tried and understood it.

So far the only instance of unfavorable effect by the action of this mixture, is the one you cite from Petersburg. I feel confident that in the autumn I can give you satisfactory documentary evidence of its good effects.

I think you were unfortunate in the sample sent you for analysis, as it is entirely unlike some 8 or 10 different ones that have been made of it by other chemists.

I send you a printed copy of Dr. Hayes' analysis, that has been commented upon by you, by which you will perceive you were mistaken in saying he did not give the ammonia. You will find the percentage of ammonia given at the foot of each analysis.

The above are the simple facts of the whole matter. I ask, as an act of justice to me, that you publish this letter, with a request to those papers who have copied your articles, to do the same with this.

I trust your sense of justice to yourself will induce you to take back the charge of fraud in connection with this guano, when you see the money value of its component parts is fully equal to the price asked for it. I am, Sir, with due respect, yours, Philo S. Shelton.

Here we have an admission from one of the principal owners and venders, that the "Chilian Guano" is not an imported article—that it did not "come from the coast of Chili," but that it is a compound made in this country.

We trust farmers will appreciate the "motives" assigned by Mr. Shelton for endeavoring to deceive them; and that the "eight or ten different" chemists who have been employed to analyse this "mixture," under the supposition that it was a *genuine* "Chilian guano," will feel duly honored. Mr. S. says "this is the whole extent of the fraud, *if you can make it one*." A fraud according to Webster, is a deception; generally a deception in buying and selling. Mr. S. himself fully admits that he attempted to deceive "many farmers" by giving to Mexican guano a "smell" of ammonia and a false name, and even had we no other evidence of his connection with this business than his own letter, we should be warranted in charging him with "fraud," of however harmless a nature it might be. But unfortunately Mr. S. has only made a partial confession, and our intimate acquaintance with the whole manipulations of the manufacture of "Chilian guano," compels us to believe that the manufacturers ers of this article are guilty of a gross, systematic and unmitigated fraud. If it is a simple "mixture" of Peruvian and Mexican guano with a little sulphate of ammonia, as Mr. S. states, why was it not made in Boston. Why was it taken to Newark, *and from there three miles over a heavy road into the country?* Surely no business man, such as we suppose Mr. Shelton to be, would incur the expense of freight from Boston and return and *six miles of heavy land carriage*, simply for the purpose of mixing Mexican and Peruvian guano and a little sulphate of ammonia together. We feel compelled to conclude that Mr. S. has confessed only part of the truth.

We have even still a lingering hope that Mr. S. is not as guilty as the actual manufacturer of the article. Mr. S. intended to deceive "many farmers,"—perhaps as he states, for their own good—and it may turn out that the person he engaged to *mix the articles together*, deceived *him*. He *most certainly did*, if Mr. S. thinks that the "Chilian guano" is compounded of the ingredients stated in the above letter. Mr. S. thinks we were "unfortunate in the sample sent us for analysis." We beg to assure him that we took both samples with our own hands, from a large quantity—some 200 tons,—of the Mexican and Chilian guano, from a warehouso in Newark, where it was brought direct from the factory. Furthermore we would again inform Mr. S. that whether he knows it or not, the "Chilian guano" is compounded of a very inferior Mexican guano,—furnished as we were informed by "a Mr. SHELTON of Boston,"—of sugar-house scum, of salt and plaster, with the addition of a little Peruvian guano, and quick lime to set free the ammonia and give the "smell" desired by "many farmers." If Mr. S. does not credit this, let him proceed to Newark and investigate the matter as we have done, and he will be convinced of the truth of our assertions.

In regard to our statement that Dr. HAYES did not give the per centage of ammonia, we have to say that we copied the analyses from the *Oxford* (*Me.*) *Democrat*, the editor of which is agent for the Mexican and Chilian Guano, Mapes' superphosphates, &c., and whom we supposed well informed on the subject. *In these analyses the per centage of ammonia is not given.* We endeavored to get the original "printed copy of Dr. HAYES' analysis," but without success, and even in the one sent by Mr. SHELTON a portion seems to have been cut off from the bottom. We should be glad of a perfect copy, and will do Dr. HAYES full justice.

The correctness of our analysis of "Chilian guano," and of our estimate of its value, are confirmed by Mr. PLEASANTS and Mr. REESE, the guano inspectors of Petersburg and Baltimore, both of whom made an analysis of the article; and furthermore, on the correctness of their analyses being called in question, the matter was referred to Dr. STEWART of Baltimore, who analyzed the "Chilian guano," and decided it worth not more than $13 per ton, or two dollars per ton less than our estimate of its "outside value." Yet in the face of all this, Mr. S. would persuade us that the article is well worth $35 per ton! It would appear that the large quantity from which we took a portion for analysis, and also the cargoes sent to Petersburg and Baltimore, were all "unfortunate" samples of Chilian guano.

In pursuance of Mr. SHELTON's suggestion, we request those papers which havo copied our previous articles, to publish also the foregoing.

CABBAGE GRUB.—M. ROBERTS, Chateaugay, Franklin Co., N. Y., writes that a "white grub is committing great havoc among all kinds of cabbage in this section of the country. It may be destroyed in the following manner. About nine o'clock in the evening the grubs make their appearance at the top of the cabbage, when they may easily be romoved into a dish, and killed. This plan, followed up for a few nights, will soon rid you of these trespassers."

Grow your own Clover Seed.

We are acquainted with intelligent practical farmers in Western New-York, who believe it profitable to seed down *all* their wheat and barley land every year with red clover. A well known and successful cultivator of light land, near Rochester, has abandoned altogether, the use of the summer fallow, depending on corn and other hoe crops to enable him to keep the land clean. After corn he frequently sows barley, seeding it down with 10 lbs. of clover per acre, and, in the fall, after the barley has been harvested, the clover affords good pasture for sheep or cattle, or, if feed is abundant, it is allowed to grow uncropped, and is turned under, the same fall, and the field sown with wheat on one furrow. He is satisfied that the value of the feed in the fall and the fertilizing effect the clover roots, &c., have on the subsequent wheat crop, more than pay the cost of the clover seed. Others are convinced that, where corn is to follow, it is highly profitable to seed down a wheat or barley crop, with clover, and allow it to get a good start the next spring before the land is plowed up for the corn crop. The clover, also, in this case furnishes much fertilizing matter, and the practice has the additional advantage of furnishing green food for the grubs and worms till the corn has attained a good start, and is capable of sustaining their depredations without material injury.

It is possible that, under such a system, the land may in time become exhausted—not of potash, soda, or lime or of sulphuric or phosphoric acid, but of some peculiar combinations of these or other elements of plants which, as yet, neither the chemist in his laboratory, nor the experimenter in the field has been able to discover. In other words, our fields, like the light soils of England under the four course system of rotation, may become "clover sick," and refuse to grow red clover oftener than once in eight or twelve years. But, at present, we apprehend no such a result. We believe clover sickness is unknown in this country, and should be glad to hear from our correspondents on this point. Our object is rather to commend the extensive cultivation of clover, and to recommend the systems aluded to, or a modification of them, to those who have hitherto seeded down, at most, only a portion of their wheat or barley crop with clover. Be assured that, on all farms where wheat, corn, barley, oats and other cereal grasses are extensively cultivated, *it will abundantly pay* to grow as much clover as possible.

Why clover, peas, beans, tares, sainfoin, lupins and other leguminous plants are so advantageous in rotation with wheat, barley, oats, Indian corn and other graineous plants, we will not now stop to inquire. The fact that they are so cannot be denied, and whether it is owing to their requiring a different proportion of mineral substances, or whether, principally to the fact that they do not require for their growth more ammonia than they contain, while the wheat, corn, and other plants of the same order destroy large quantities of this expensive fertilizer, is a question which it is not necessary to decide before we can act upon the teachings of experience.

In order to induce farmers to sow more clover, it is very important that they be persuaded to *grow their own clover seed;* for it will be admitted that he who has to pay $5 to $8 per bushel to the city merchant or seedsman will be much more sparing of clover seed than the farmer who raises an abundance of his own. Fortunately this climate is not only well suited to the growth of large crops of clover for fodder, or for turning under as a fertilizer, but it is also well adapted for the production of large crops of excellent clover seed. Why, then, is it so high? why is it that every farmer does not raise at least as much as he needs for his own use? There is certainly no more necessity for buying clover seed, than there is for buying seed wheat, corn, barley or oats.

If not already done, let every farmer select a few acres of his cleanest clover, cut it as early as possible, and then allow it to go to seed. If the land is in good heart, and clean, nothing more is required; if poor, 150 to 200 lbs. of good Peruvian guano per acre sown broadcast as soon as the first crop is removed, during showery weather, will be found a beneficial, and, we have little doubt a profitable application. Plaster increases the foliage of the plants, but, it is said, retards the ripening of the seed. Four bushels of clean seed per acre is a fair, average crop; but eight bushels may easily be grown by cutting the first crop early, or by eating it off by sheep till the middle of May or first of June. If the land is not rich enough it should be well manured, early in the spring, or, still better, in the fall, with well rotted barn-yard dung. It is important to have the clover as early as possible, since it is frequently injured by frosts in the autumn. After the seed is matured, however, *frost does not hurt it;* and, now that we have several excellent machines for taking off the heads of clover seed, thus avoiding the expense and labor of curing the clover in cool wet weather, it may be left out late in the fall without any loss or inconvenience.

We repeat, and we would that every farmer in the country could hear us, *grow your own clover seed,* and never, without special reason, sow a field of wheat or barley without seeding it down, in the spring, with from 10 to 15 lbs. of red clover per acre. We believe it will pay, even though the clover sod is plowed up the next spring. We will add, too, that, where plaster can be had for less than $5 per ton, and where experience proves it good for clover, the practice of sowing a bushel of plaster per acre *at the time of sowing the clover seed.* is worthy of extensive adoption. We think it of great benefit in enabling the young clover plants to stand the drouth.

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SCURVY PIGS.—Wash them clean, and rub slightly with buttermilk or grease; give them a dry bed, always in a warm place, and plenty of wholesome foodt We never saw a pig yet so incorrigible as to withstand this treatment, and keep scurvy long.—*New Eng. Farmer.*

Packing Buds and Grafts.

We have on former occasions given directions on this subject,but have observed among the packages of grafts occasionally received, indications that the best modes are not well understood, even by some intelligent cultivators of fine fruit, by whom errors are often committed.

Since the reduction of postage, the transmission of buds and grafts by mail, has become a great convenience to fruit raisers and pomologists, and the only difficulty is to put them up so that they shall carry long distances with safety. The essential requisites, are to secure the moisture they contatu from evaporation, and to prevent bruising.

To prevent evaporation, it was formerly the practice to encase them in muslin covered with a coating of grafting wax; but this was found inconvenient to apply and troublesome in removal. The writer therefore introduced an improvement some fifteen years since, which has since been generally adopted throughout the country. This is to wrap the grafts in *oil-silk,* selecting a piece large enough to cover them and to bend it up over the ends, so as to bring it down *air-tight* on every part, by winding a fine thread around it at very short intervals from end to end. This forms a complete air-tight case, through which the moisture from the graft or buds cannot escape; and if well put up, *grafts* may be sent in this way across the Atlantic without the slightest risk. Buds in summer, being greener and more succulent, and the temperature being warmer, cannot be forwarded to such great distances. Peach buds, and other kinds cut before the wood is well ripened and hardened, should not remain in this condition longer than three or four days; but well ripened shoots of the pear and apple, near the close of the season of growth, will continue uninjured for at least a fortnight.

To prevent bruising during the period of conveyance, cotton batting, or several thicknesses of soft paper, should be placed *outside* the oil-silk wrapper. A pomological friend, to whom we gave instructions some years since in sending grafts, took the especial precaution of applying a coating of cotton batting *first* to to the grafts, and then encased them in the oil-cloth. The consequence was that the dry cotton in immediate contact, absorbed the moisture from the grafts, and on their arrival they were found as dry as if exposed to a summer sun. In another instance, several thicknesses of soft paper were used for a similar purpose, and with a like result. For this reason, even the strip of paper containing the name, should be as small as possible; and it is still better to write it with a finely pointed soft pencil on a shaved portion of the scion—or to cut notches as reference-numbers.

When large quantities of scions are sent by "Express," a different mode of packing is to be adopted. We have sometimes received them, withered and dried, without anything to preserve their moisture; and in one instance a bundle of grafts was sent *with the leaves left on to keep them moist,* but instead of producing this result, the leaves had operated as evaporators (as they always do,) and had pumped all the moisture out of the grafts, through the leaf-stalks, and they were thoroughly seasoned when they came to hand. The leaves should always be removed, and the grafts packed in alternating layers with fine damp moss, and with a good moss-coating outside. Damp sawdust is a good substitute for moss, for packages of moderate size. The packing should not be *wet*, as in this case it will cause the scions to become water-soaked and tend to induce decay. Buds at mid-summer may be put up in this way, and will keep without injury from three days to a week or more, according to the degree of maturity which the wood has obtained.

Connecticut Agricultural Society.

The recent organization of this society is arousing great enthusiasm among the farmers of the state. The indefatigable Secretary of the Society seems almost omnipresent. With scarcely a day for rest, he has, since his appointment, prepared, corrected, and issued the Transactions of the past year; a prize list for the next; attended all the meetings; secured funds to the amount of $3000, for the expenses of the Fair, beside an appropriation of $2500 from the State Legislature; carried on the correspondence of the office, and visiting all parts of the state, calling upon the many manufacturers and farmers in person, and inspiring them with his own enthusiasm.

The prospects for the next Fair at Hartford, Oct. 9th, 10th, 11th, and 12th, are highly encouraging. The Rail Road companies, with a single exception, have, with a prudent regard to their own interest, furnished every facility in their power, carrying all articles free, and with unusual liberality, presented to the Secretary free passes for the year. This is a favor to the society, profitable to the companies, and worthy of imitation.

The little city of Hartford has contributed $3000, towards the expenses of the Fair; a fine lot has been selected, and buildings contracted for, adapted to the exhibition of all the products of agriculture and the mechanic arts. There is perhaps no part of the country, or even of the world, which has, according to its population, a greater variety of manufactures than Connecticut. These manufacturers have been visited by the Secretary, and are pledged to unite with the farmers of the state, in making the next fair the greatest and best ever held in New England.

The whole community is aroused. Among the producers there are those in all parts of the state striving in view of the Fair to excel in their various vocations. There is no part of the state in which there is not a garden, fruit yard, farm or shop, to show progress made in view of the coming Fair.

The committee of arrangements are expecting an immense gathering.

The Rail Road companies are enlarging their facilities for transportation, and the citizens of Hartford are preparing for the entertainment of at least 100,000 people at the Fair.

The premium list, some $7000, is liberal towards exhibitors from other states, and it is earnestly hoped that the best agriculturists from abroad will be present, to share in the festivities of the anniversary, and witness the triumphs of Connecticut, (the hale mother of states,) in view of her second successful State Fair. J. T. A. *West Cornwall, Ct., June 17th*, 1855.

Kohl Rabi—Billing's Corn Planter, &c.

Mr. Tucker—Among some packages of seeds obtained from the Patent Office in the last spring, was one labeled, "Green Topped Kohl Rabi." I have sown some of them and they have come up finely, looking very much like cabbage plants. I have thinned them to two or three inches apart, and must wait for information as to their further treatment. Will Mr. Sanders—who so often favors us with his valuable communications—or some one else enlighten me.

Rains are abundant just now, and grass, which in this vicinity was almost killed by the severity of the winter and the drouth combined, is rapidly improving.

The farmers here have been riding almost to the death an agricultural hobby, in the shape of a new corn planter, called Billing's improved, I think. It is an ingeniously contrived machine, yet not at all complicated, and will plant corn, broom corn or beans at the distance of 20 and 40 inches *in hills*, dropping also any finely prepared fertilizer, either with the seed or at the distance of an inch or two.

This fell in nicely with the notions of many of our people, who are much given to Homœpathic doses of manure, and sometimes shockingly diluted too. The planter was put to work, and as the season was late almost every one was anxious to use it. Planting was done up with great despatch, and the smart little hobby was turned out. The result was just what might have been expected. In many instances the corn came up well. In others, owing to shallow plowing and a poor preparation of the soil, otherwise; it could not be suffciently covered, and of course could not vegetate. In other cases still, where the ground was mellow and dry, and the planter loaded with some 20 or 30 lbs. of fertilizing material, the seed sunk so deep as to render the prospect of vegetation almost hopeless, and even when a few struggling blades made their appearance, they looked as though the vital principle had become pretty much exhausted in the effort. I would have no one infer from this, that the planter is in fault. But it would be well if we could remember that many of our improved farm implements presuppose a higher state of cultivation than generally prevails. and also that in their use judgment and experience are of great importance. Failures should not discourage us, but make us more cautious in future.

You have probably heard before this of the two very liberal premiums offered by the Mass. Ag. Society—one of six hundred dollars—for the purpose of testing the utility of Mowing Machines in general, and another of one thousand dollars to prove the comparative merits of them in use. If properly managed it woul seem as though they might be the means of doing much to set le these two points. E. N. N. *Hadley, Mass. June* 12, 1855.

Kohl rabi is a variety of cabbage, and should be transplanted in hills, the same as cabbage.

Turnips among Corn—Cabbage Lice, &c.

Editors of the Country Gentleman—Your remarks of June 7th, on "root crops," are valuable. I thank you for them. You advise the scattering of turnip seed among corn. Would you do this where you intend to plant the same ground with corn next year? It is the belief of some persons that corn will not do well after turnips. My limited experience is in keeping with this belief. I should like to know whether there is good foundation for this opinion.

Mr. Sander's article on "*late cabbage*," is good; but I shall continue to use the dibble notwithstanding his opinion to the contrary. I can set plants much faster with it than in any other way, and if he will come and look at my ground, I think he will say that the roots will not be troubled to find their way out of the hole. I am trying the tobacco remedy for the fly, but find it no small matter to pulverize the tobacco, and sift it over fifteen or twenty thousand plants in the field.

Mr. S. said nothing about *lice* on cabbage. Last year this enemy did me some damage, and although I find none yet in my field this year, I have seen them in another field, and shall probably soon find them nearer home. Is there any remedy for them, and if so, what?

I have somewhere read or heard of putting late cabbage between the rows of corn. What do you think of it?

The crops in this region look better than for two years past, except *grass*, and the frequent rains are bringing this forward finely now. Potatoes never appeared better, but the rot may over overtake them yet. Ashes and plaster, used freely on the tops, I believe to be almost a certain remedy. A farmer of my acquaintance in Fairfield County, used to have no diseased potatoes during those sad years of 1844 and onward, and his practice was, and is, to give the field two or three dressings of ashes and plaster, the first time sifting over each hill, and after that sowing broad cast, two bushels of ashes and one of plaster to the acre, always applying them when the tops are wet. I have never seen rotten potatoes where this was thoroughly done.

Please answer my inquiry about lice on cabbage, in the next number if you can. J. S. W. *New Britain, Conn., June* 22, 1855.

We have frequently heard it stated that corn does not do well after turnips, but have never seen any evidence of the fact. It may well be, however, if a heavy crop of turnips is grown *and removed from the land*, and the corn planted without any manure, that it would prove a poor crop. But in recommending the extensive cultivation of turnips as an alternating crop with wheat, corn, oats, &c., we took it for granted that the turnips would be consumed on the land, or that the manure made from this consumption by animals in the barn-yard, would be returned to the soil. Of course if this be not done, the land instead of being enriched would be impoverished by the growth of turnips. We place great faith in the general opinion of experienced farmers, but we cannot doubt that if turnips are sown among corn, and are consumed on the land in the fall, other things being equal, the corn crop, the next year, would be much the better for it. The same remarks, probably hold true in regard to cabbage, so far as increasing the fertility of the soil is concerned. It may be, however, that, as cabbage are larger than the small, late turnips we are speaking of, they would interfere with the growth and ripening of the corn. Practical trial must decide this matter, and we should be glad to hear from any of our correspondents who have had experience in growing turnips or cabbages among corn.

Soot, quick-lime and ashes, we have seen used to destroy the cabbage lice, but not with that success which might be anticipated from the statements of writers. We have had more success with soot (coal soot, but we suppose wood soot would do just as good,) than anything else we have used. On cabbage in the garden we have destroyed lice with guano water—say a tea-spoonful to a gallon of water. At least, it either destroyed the lice or induced such a vigorous growth that the plants were enabled to withstand the depredations of the aphides. If guano is used to any extent on the farm, the *washings of the guano bags* can always be used to good advantage in the garden, but be careful that they are not too strong

Value of Mules.

In regard to Mules—having handled them most of my life, I give your readers some of their qualities. The mule is a very hardy animal, fit for pretty hard service at 3 years old—does not mature till 8—requires a great deal of exercise—should never be over urged when young—and if tired out in breaking in, never has good spirits afterward. If they are always treated kindly, are the kindest of animals, never stubborn. A mule will always pull in the harness from the first—will at 3 years of age do as much work as a horse one-fourth or one-sixth heavier, on from one-half to two-thirds the amount of grain. They are not half so liable to accidents as horses, and recover from injuries much more readily than horses.

It is quite important to get them, if used in pairs, of even spirits. A lazy mule cannot be made to do his part—a spirited mule will always retain his spirits if not over urged. They are more suited for draught than the road, though I have seen them superior to the best road horses. They are easy in their gait for the saddle, but generally the shoulders are too low for the comfort and safety of the rider.

When steady every day work is required, no animal can compare with the mule; he thrives better on his steady through hard work, if not over urged, and well fed, than he will in the stable.

They are more unruly than horses, requiring more exercise and having a more roving disposition. They become attached to home, and never kick a kind master. No animal is more observing than the mule. Were I to break in one thousand mules, I would not use a whip in any case, and would in all cases gain their confidence and then the work is done.

If used for heavy work, they should be driven upon a walk at all times—as also should horses. Fifteen hands high, is the best size for team or farm work. Such a pair, if well made and properly fed, will do very heavy work. Their strength is astonishing.

If any of your readers would like to know where they can see young and older ones, they can call on Mr. JAMES BUCKELEW at Jamesburg, on the Camden and Amboy Rail Road, who have one or two hundred on hand at work most of the time, or the Messrs. BISHOP at Jersey city, who also deal in them. Our finest mules are brought from Kentucky. Mules 15 hands high, 3 years old, are worth from $300 to $500 per pair, and some extra ones readily command $600. DAVID LYMAN. *Middlefield, Ct., June* 26, 1855.

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Cure for Scours in Cattle.

MESSRS. EDITORS—I notice in the Country Gentleman of the 14th inst. that a correspondent wishes to know of a sure remedy for scours in cows.

I do not know as I can give a sure remedy for all cases, but I can state a case that occurred in my own dairy of cows, which was I think in June 1853.

One of my best cows was attacked with what I called the *scours* in its worst form, discharging nothing but frothy water; she was giving a 12 quart pail full of milk at each milking, at the time, and so violent was the disease that in a day and a half she shrunk to 2 quarts.

I became somewhat alarmed about her, and inquired of every man I saw, if they could tell me what would help her. At length one man told me to give her some hen's eggs, shells and all; and if she did not chew her cud, to scrape some sweet elder bark, and give her for a cud. Thinking no time was to be lost, I immediately gave her six eggs, shells and all—also the elder bark. This was in the forenoon, and at evening I repeated the dose of eggs, and again the next morning, which effected a cure; but she did not come up to her usual quantity of milk—nine quarts of milk twice a day, being as much as she ever gave after that.

About the 20th of May last, I had another cow attacked in the same way. I did not allow the disease to linger as long as the former one, but immediately gave her a dose of six eggs, which entirely cured her.

Now, Editors, if you think the above worth a place in the columns of the Country Gentleman, (a paper that every Farmer and Gardener ought to take,) perhaps it may prove beneficial to many an individual who keeps stock; at any rate the remedy will do no harm if does no good.

Readers of the Co. Gent., please try the remedy if you have an occasion, and state the result. Perhaps some one can give what they know to be a *sure* remedy. D. A. JACKSON. *Fairfield, N. Y.*

Special Manures for Fruit Trees.

As a general rule, some kind of compost made of common yard or stable manure, is best and most reliable for fruit trees. Successive layers of turf, or of muck, and turf, in connexion with one-third or one-half manure, and a small quantity of ashes, worked together after lying a few weeks, will be found admirable in nearly all cases, if used in proper quantities. But in rare instances, a special application proves of eminent advantage. An example of this sort occurs in the statement of the Shakers at Harvard, Mass., published in the Patent Office Report. The soil is clayey, but the trees grew poorly. They applied all the special manures suggested by experiments or reading, until observing the effect of urine on an unthrifty apple tree, they were induced to try it on pear trees that remained unthrifty in spite of iron, bone-black, ashes, lime, and high manuring. "The result was, the trees shot up a growth as luxuriant as weeds in a hot-bed. Those which had rarely made an inch of growth in a season, grew scions from 18 inches to three feet even, in the summer following the operation." The mode was to apply about two quarts, sprinkled around each tree at a time; to stir the surface of the earth a little, so that it may be well mixed, and prevent the formation of a crust. A cloudy day is recommended. The operation is repeated a month afterwards; and again on those trees not showing a satisfactory result. Caution is needed not to over-stimulate—the quantity must of course vary with the size of the trees, but we are not definitely informed in this respect. The full effect is not confined to the first year. What particular ingredient, or rather what particular *form* of it, contained in this application, not to be found in ordinary manure, produced so extraordinary results, we leave for theorists to determine, if they can do it with certainty.

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Black Ants.

In the Co. Gent. of May 31, I inquired for some means to be rid of black ants that were no small anoyance in the flower garden. My ground being of a gravelly soil, it was of no use to try making holes with a crow bar, with any expectation of success. I had previously tried sinking tin and glass cylinders, some with molasses in them, others without. The ants went in and out when they pleased; they ate my bait and left my traps tenantless. I applied tar around the body of shrubs and trees, with the hope of protecting them, but after one day of sun, the ants went over dry shod. Vexed at their repeated depredations, they seemed only to glory in my ill success in getting rid of them.

I at length presented them a *bill for collection*, for damages done, that effectually *cropt* their aspirations. I placed my chicken coops in the garden walks, where they were most abundant, and the little bills of miniature hens, collected vast numbers daily. In the short space of one week the city was captured and the home of the ant left desolate. O. C. G. *Ohio.*

Answers to Inquiries.

Root Grafting.—*G. D.* Root grafting and budding (or stock grafting,) have each their advantages. As regards *economy*, root grafting has the superiority, as transplanting into nursery rows, which must be done in any case, is performed when the grafts are set out, while the operations of removing ligatures, heading down, tying up, &c. needed for budded trees are not required for root-grafts. With stock grafting, a part of this labor is obviated; but stock grafting must be done in spring or at the busiest season of the year; while root grafting may be done in winter, and budding at the comparatively leisure period of summer.

Buds, inserted into strong thrifty stocks, will make a longer growth the first season than root-grafts, and hence they are better for some crooked or feeble growing sorts, producing handsomer and straighter trees.

The superiority of budded and stock-grafted trees, has been much contended for by some of our western fruit growers. But we have not yet obtained any decisive proof of this superiority, except in some portions of the north-western states, where a fertile soil causes a rapid growth, and intensely cold winters following, sometimes destroy the trees by freezing and cracking at the point of junction between the root and graft. Some varieties, as Esopus Spitzenburgh, Northern Spy, Rhode Island Greening, and others, which appear to be peculiarly liable to this disaster, are better adapted to this region, if budded or grafted on strong natural stocks, two or three feet above ground.

In all other instances, root grafted trees appear to be quite equal in every respect to any, and are indeed often better. We cannot discover any satisfactory proof of their reputed tardiness in bearing. Out of hundreds of trees of both sorts, which have fruited on our grounds, we cannot perceive any difference in this respect. And of the testimony furnished by western cultivators, there is much adduced on both sides, but nothing preponderating nor conclusive. So much was said however, a few years ago, against root grafting, that many eastern nurserymen adopted the opinion that root grafted trees were quite inferior to others, unless the *whole root* was taken for grafting upon, instead of portions or sections according to the usual practice. By taking the whole or uncut root, it was asserted the same advantage would result as by stock grafting or budding.

We have not been able to discover any sound reason for this opinion. For whether the whole or a part of the root is taken, *new roots* must be thrown out as growth advances,—*the graft rarely throws out any in either case*,—and how one set can differ in any essential character from another, we are unable to decide. Every grafted tree, when removed from the nursery, loses by ordinary management, a very large portion of its roots; but after it is re-established, has its character or hardiness become permanently changed in the least degree, by such previous loss? Does a single *root pruning*, render a tree different in character, four years after all the lopped roots are restored,—this being the usual time that elapses after a root graft is made till the young tree is sold?

We can see no philosophy in any of these objections to root-grafted treees, save the one we have already mentioned; and observation and practice fails to establish them. Accordingly, some of the best cultivators of the present day, cut their roots into sections about three inches long, on which they insert a graft about twice as long, finding a short root and a long graft, by deepening the place of junction below the soil, better than a long root and a short graft, and less liable to fail of growing.

Fruits, &c., near Water.—Living on the shores of Lake Huron, my house within about thirty feet of the water's edge, with a garden between the two, I wish to have an opinion from you, whether or not this close proximity to such an inland sea, is injurious to fruit and garden vegetation.

Col. Sherwood's Sale of Short Horns.

Auburn, June 20, 1855.

L. Tucker, Esq.—A fine assemblage of gentlemen, about two hundred, were present here to-day at Col. Sherwood's sale. Mr. Osborn from Ohio, Mr. Ashton of Galt, C. W., Mr. Cowles and others of Farmington, Ct., Mr. Bishop, New Haven, Messrs. Haines and Treadwell, N. J., L. F. Allen, W. Fuller, S. Thorne, S. T. Taber, D. B. Haight, J. W. Wilkin, S. P. Chapman, A. Stevens, E. M. Bradley, D. D. T. Moore of Rural New Yorker, J. R. Page, J. W. Bacon, Mr. Stevenson, of Wash. Co., and others, were present. A fine collation in the Col.'s spacious barn, was disposed of. At about half past one, Col. James M. Miller from New-York, commenced the sale, announcing the upset prices. The Bulls were first sold, as follows:

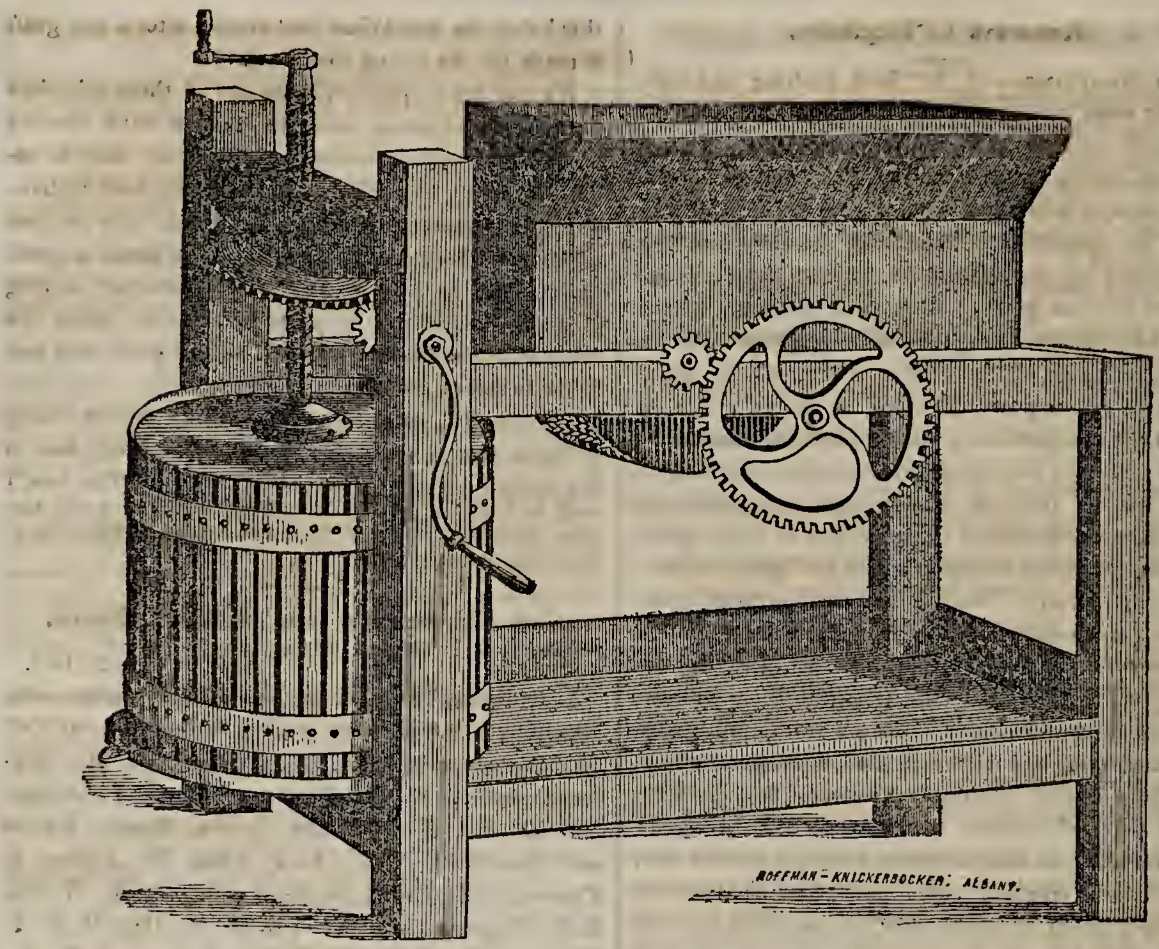
No. 10.	Red Jacket, J. W. Wilkin, Orange Co.,	$500
5.	Pope, Seth R. Payne, Geddes, N. Y,	415
2.	Lafayette, T. F. Osborn, Erie Co., Ohio,	350
9.	Prince Albert, (calf,) Wm. Ashton, Galt, Ca.,	175
3	Powhattan, Jno. Taylor, East Bloomfield,	120
4	Novelty, L. F. Allen, Black Rock,	75
7.	Waterloo, Mr. Bentley, Seneca Falls,	135
8.	Chautauque Chief, Mr. Birdseye, Pompey, On.,	55

The cows sold as follows:

No. 2.	Red Rose 4th, 6 years, imported, Wm. Ashton, Galt, Canada,	$925
	Red Rose 10th, calf of above, 3 weeks old, Wm. Ashton,	350
3	Red Rose 5th, 4 years, R. T. Haines. N. J.,	600
4.	Red Rose 7th, 3 years, Wm. Ashton, Canada,	620
5.	Red Rose 8th, 1 year, T. F. Osborn, Ohio,	250
6.	Red Rose 9th, 11 ms, Thos. Gould, Aurora,	350
7.	Lady Sale 2d, imported, Wm. Ashton, Canada,	610
8.	Lady Sale 4th, 7 years, J. R. Page, Sennett,	400
9.	La Polky 2d, 2 years, J. W. Wilkin,	410
10.	Phantom 2d, 2 years, J. W. Wilkin,	450
11.	Lady Brown, 3 years, T. F. Osborn,	200
12	Style, T. F. Osborn,	220
13.	Lady, 4 years, T. F. Osborn,	310
14.	Flower, 18 mos., T. F. Osborne,	260
1.	Red Rose 2d, imported, 9 years, A. Stevens, Batavia,	300

This is an encouraging sale, especially the cows and heifers, which brought very fair prices. Col. Miller conducted the sale admirably, and every thing went off well. J.

The above sales include eight of the ten males in the Catalogue, at an average of about $228, and fourteen of the fifteen females in the Catalogue, at an average of $417 each.


HOFFMAN - KNICKERBOCKER: ALBANY.

Emery's Patent Cider Mill.

The above cut represents a new Cider Mill projected by the Messrs. Emerys of this city, which promises well. As the cut shows, it is a grating cylinder mill, with a geered power press combined—the whole being compact, and afforded at about forty dollars. Advertisement and full description in next No.

Inquiries—Strawberries.

1. Will the "pistillate," or bearing plants, produce "staminate," or barren plants, by their *runners?*

2. Will the pistillate plants bear as fully when set near plants of the "Early Scarlet," as when set near "staminate" plants of their own variety?

3. Is the fruit thus produced, by the pollen of the "Early Scarlet," different in size, shape, or flavor, from that produced by the pollen from staminate plants of their own variety? A. K. *Vernon, Conn.*

1. Runners being nothing more than *rooting branches,* cannot cause any variation in the character of the variety—any more than the branches of an apple or pear tree can vary in character from the rest of the tree.

2. Pistillate plants of any variety, do not have any distinct staminate plants of the *same variety*—on the contrary, it is the fixed nature of one variety to be pistillate, and of another to be staminate or hermaphrodite.

3. As *all* pistillate plants (strictly so) must be fertilized by some other variety which is a staminate, every berry on a pistillate plant must be a *cross*—but the berry thus produced does not exhibit the cross, but only the *plants and fruit obtained from the seed thus produced.*

Inquiries about Soiling.

Messrs. Editors—I noticed the article in your paper from Mr. Morse, on soiling cattle—a subject about which I have been very anxious to obtain information, but did not know who had made any experiments in this country, sufficient to satisfy themselves in respect to its practicability.

Now the information I wish is this—can a dairy of sixty cows be fed to good advantage, in this way, where the land can all be tilled, and where barn and other buildidgs are convenient?

Will it require an entire extra hand for the feeding? What proportion of land can be saved by this method, and should cows be fed with something of a variety of food to insure good health?

If you will have the goodness to give us an article upon the above subject, (in other words your view of the matter,) I for one should consider myself very much obliged. And further, please ask Mr. Morse to give his ideas upon the matter at large—in short every thing he can think of bearing upon the subject, as I which to be tolerably well satisfied before I adopt any new theory. H. A. Chamberlin. *Hudson, O.*

Lemon Pie.—Remove the rind of one lemon, cut fine, add one cup of sugar, one-half cup of cream, and one egg.

Trial of Mowers in Westchester County.

The following is the official report of the recent trial of Mowing Machines in Westchester County:

The following machines were entered for trial.

Ketchum's machine, manufactured by Howard & Co. of Buffalo, N. Y.

Russell's machine, manufactured by R. H. Pease, of Albany, N. Y.

Forbush's machine, sold by Griffing & Brothers, N. Y. City.

Manny's mower, with Adriance's improvement, manufactured at Worcester, Mass.

Manny's mower, sold by L. C. Ball of Hoosick Falls, N. Y.

Hallenbeck's machine, manufactured at Albany, N. Y.

Allen's machine of N. Y. City.

Ketchum's machine manufactured by T. and S. Hull of Poughkeepsie, N. Y.

Ketchum's one horse mower, manufactured by Ruggles, Nourse & Mason, Massachusetts, sold by R. L. Allen of N. Y. City.

The trial of the different mowers commenced at a few minutes past 1 o'clock, and after the different machines had each been driven twice across the field by the same driver and team, B. P. Johnson, Esq., Secretary of New York State Agricultural Society, delivered an able address to the multitude, appropriate to the occasion, after which, the trial was continued through the afternoon, and concluded on Saturday the 16th.

On the afternoon of Saturday, the 16th inst., the Society of Agriculture and Horticulture of Westchester County was called to order by the President, and the report of the Committee of Judges, after considerable discussion, was adopted as follows:

To the President of the Society of Agriculture and Horticulture of Westchester County:

The Committee appointed to decide upon the merits of the Mowing machines shown at the exhibition held under the auspices of the Society of Agriculture and Horticulture of Westchester County, at the farm of A. F. Dickenson, Esq. of Bedford, on the 15th and 16th of June inst., respectively Report:

That they were very greatly pleased with the performance of every machine exhibited, and can confidently say that they believe any one of them would give satisfaction to the farmers of the country, and when all are so excellent it becomes a matter of considerable difficulty and embarrassment to the Committee to decide which one of them embodies the greatest number of desirable qualities. But as they all possess peculiar excellencies we will specify them under the following heads:

1st: Operation of the machines on fair ground, driven at first by the same driver and team and afterward by the exibitors themselves or under their direction:

On this point your Committee find that the machines of Ketchum, Hallenbeck, Manny, and Allen are of equal excellence.

2d: The lowest and smoothest cut of each machine:

Your Committee are of opinion that upon this point there is no marked difference in the four machines just mentioned.

3d: Trial on rough uncleared bottom:

Your Committee on this point give tho preference to Allen's and Russell's machines.

4th: Evenness of grass as left by the machine for curing:

We find that the machines with the iron cutter bar have the preferene in this respect.

5th: Freedom of knives from clogging:

We are of opinion that the machines of Ketchum, Manny, Hallenbeck, and Russell, on account of the finger caps not reaching back to the finger board, are least likely to clog.

6th: Amount of power required to perform a given amount of work:

Your Committee think there is but little difference in this respect between the machines of Hallenbeck, Manny and Allen.

7th: Facilities of transportation from one field to another, and for escaping obstructions in the field:

We believe that Manny's machine has advantages over any other in this respect.

8th: Durability and simplicity of constructions:

We believe Ketchum's and Allen's the most durable and Hallenbeck's the most simply constructed machines exhibited.

9th: Cost of machines:

Manny's, made by Adriance,.............	$120
Manny's, made by Ball,	115
Russell's, ...	125
Allen's,.............	120
Ketchum's	120
Ketchum's, made by Hull,	$120
Hallenbeck's,...........	106
Forbush's, ...	120
Ketchum's 1 horse machines,...............	95

Your Committee in this report have included under the term of Ketchum's machines, that of Hull and the one-horse Mower, manufactured by Ruggles, Nourse and Mason. And also where Manny's is spoken of, they mean to include the Machine manufactured by Adriance of Worcester, Mass., and by Ball of Hoosick Falls, N. Y.

The machine brought upon the ground by Mr. Griffing, (Forbush's patent,) is not included in this Report, as the proprietors from some cause were not satisfied that it had a fair trial, not being able to have it in proper order.

R. MOTT UNDERHILL,
JEREMIAH HOWE,
SAMUEL TEED,
STEPHEN BARNES,
HENRY WOOD,
Committee.

Trial of Mowing Machines at Rochester.

The trial of mowing machines under the direction of the Monroe County Ag. Society, took place on the farm of Judge BUEL near Rochester, on the 27th ult. We give the following extracts from the report of the committee.

There were eight machines entered for competition. The field was bad for working them, the surface very uneven and stony, and the grass thin and light. The work performed was not a fair test of the value of mowing machines, yet, with some exceptions, the work was satisfactory and proved the great value of this immense labor saving invention.

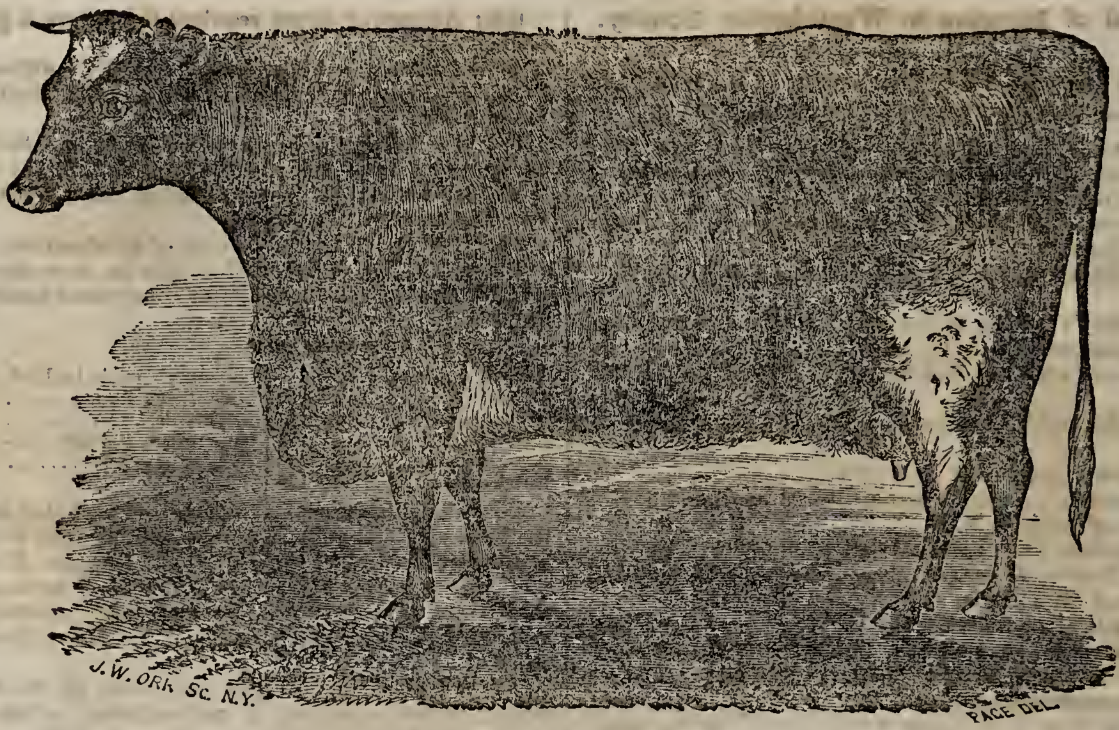
The committee were united in the opinion that the Ketchum machine, and the Manny, with Wood's Improvement, were the best on the ground; but were divided in opinion as to which of these two was the best, but a majority finally decided in favor of the former, believing that that machine cut the closest to the ground, while the latter was the easiest for the team, and for adjustment over uneven and stony surfaces. The side draught was also light, while in tho former machine it was quite heavy.

The first premium the committee award to the Ketchum machine, and the second premium to Manny's machine, with Wood's improvement.

The third premium is awarded to Wheeler's machine, of Cayuga Co. This machine cut with shears and performed good work, having an adjustable beam, and so arranged as to have little or no side draught.

Forbush's machine is a combined Reaper and Mower, and cut equally well; did not leave the grass evenly spread.

The other machines upon the ground were most of them so nearly alike in the character of the work done, that any further discrimination or expression of opinion of their respective merits is perhaps uncalled for.


J. W. ORR. Sc. N.Y.
PAGE DEL.

Mr. Becar's Short-Horn Cow Oxford VI.

This cow—imported and owned by NOEL J. BECAR, Esq., of New York—is one of the celebrated Oxford family bred by the late THOMAS BATES of Kirkleavington, and was purchased at the sale of his herd by Earl Ducie. To show the estimation in which this family is held, we may state that she was sold at Earl Ducie's sale for $1,075, while four of her descendants brought $4,880, at the same sale. At the late sale of Mr. TANQUERAY, two cows of this family were sold—Oxford 11th, to Mr. GUNTER, for $2,500, and Oxford 16th, to Messrs. MORRIS & BECAR, for $2,400.

Oxford 6th, was calved Nov. 6, 1854—got by 2d Duke of Northumberland, (3646;) dam, Oxford 2, by Short Tail, (2621;) g. d. Matchem cow by Matchem, (2281;) gr. g. d. by Young Wynyard, (2859.)

Suggestions about Depth of Plowing.

LUTHER TUCKER, ESQ.—I have noticed with some interest in the late numbers of the Country Gentleman, several articles in reference to the practical advantages of deep and shallow plowing. Though my occupation in life has never been that of an agriculturist, I have always felt an interest in, and respect for those who are, and hope therefore that you and they will not think me impertinent in offering a few suggestions that have occurred to me on the subject.

In some of the limestone districts of our country, I have observed that the tops and sides of sharp hills and ridges, are equally productive with the valleys between them—whereas in gravelly and sandy districts, the tops and sides of the ridges and hills are quite barren, and the valleys between them very fruitful. My inference from these facts is, that in the deep limestone soils, the natural wash of the hills removes the exhausted soil and brings within the reach of plants new earth of greater fertility, about as fast as is required. On the contrary, in gravelly and sandy soils, there is little or no productiveness except in the top soil, which is probably the product of ages of vegetable decomposition, and when once removed leaves the land almost entirely barren.

From these facts, my reasoning would lead me to the conclusion, that, in deep limestone soils, it will be found to be advantageous to plow somewhat deeper each succeeding rotation of crops; but that in sandy or gravolly soils, it will not do to go below the productive surface, unless artificial means are used to make the new surface as fruitful as the one turned under by the plow. The same observation may be applied to soils having unproductive clay below the top soil. If no artificial means are used to make the clay fruitful, it will I think do more harm than good to bring it to the surface.

I suppose there will be but one opinion among agriculturists, of the superior advantages of the deep soils to resist the evil effects of great drouth; and the necessity of them for the cultivation of root crops. Whether he can make it *profitable*, to make thin gravelly or clayey soils productive by deep plowing and high manuring, is a matter that depends upon so many contingences, that each one must determine it for himself; but unless he can do so, I doubt much whether he will ever make himself rich by plowing deeply on thin gravelly or clayey land. S. E. F., *New Haven.*

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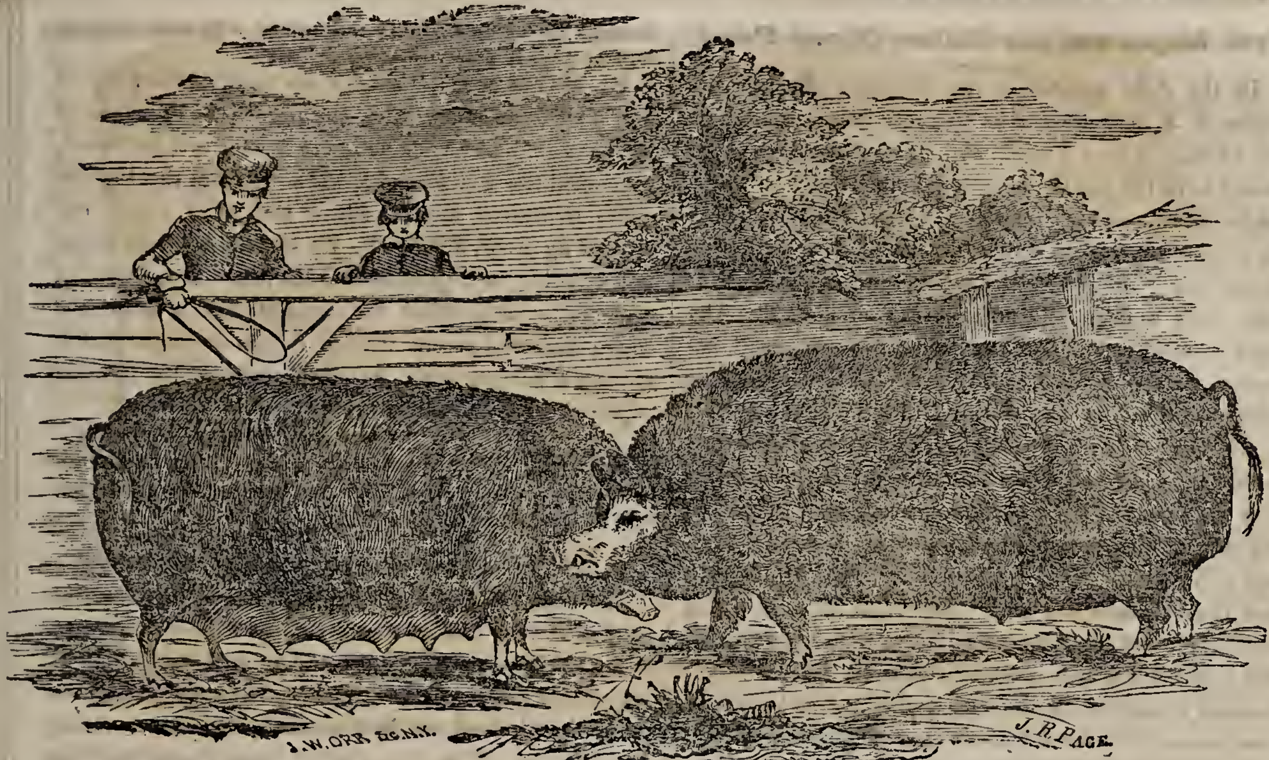
TO PREVENT BOTS IN HORSES.—A person of much experience in veterinary science is never troubled with this disease in his horses. His simple practice during the fall months is, to keep a greasy cloth in the stable, and once a week rub with it such parts of the animal as may have been attacked by the nit-fly. Grease destroys and prevents the eggs from hatching.


J. W. ORR. Sc. N. Y.
J. R. PAGE

Berkshires,

The property of L. G. Morris, Fordham, N. Y. "Sir Robert," winner of the 1st Prize at the N. Y. State Fair in 1854. "Lady Berk" was on exhibition with 10 pigs, and highly commended.

Summer Food for Store Hogs.

Messrs. Editors—I wish to raise a number of hogs the coming season, and how can I do it in the absence of milk and with nothing to feed, but the slops of the cook room. Will corn, cut up green, keep them in a thriving condition till fall? Will you, or some of your intelligent correspondents give me some information on this subject? A Subscriber.

It will not be advisable to keep too many hogs under such circumstances. Hogs, doubtless, can live on grass, green corn, green peas, &c., but they must have a more *concentrated* food to thrive well. A bulky food is not good for hogs; even bran, on this account, proves to be ill adapted to fatten them. Nevertheless, you may keep a number of hogs in a growing condition through the summer by allowing them a good run of clover, and the slop of the house, and giving them a few green peas, green corn, windfall apples, &c. We shall be glad to hear from our correspondents on this subject.

The Massachusetts Society for Promoting Agriculture, have offered a premium of $600 for the best Mower. "The possessor of the Mowing Machine which shall cut, during the present season, with the greatest economy and to the best advantage, not less than fifty acres of grass, within the State, the Machine to be worked by horse or ox power, shall be entitled to the sum of $600"—all other things being equal. The Board also announce a premium of $1,000 to the maker and exhibitor of the best Mowing Machine in 1856. A general trial of the competing Machines will be had—of which due notice, with the terms of trial will be given.

Stone Pipe for Water.

Editors of Country Gent.—In your paper of June 14, page 376, H. M. inquires if tile inclosed in cement, will bear a small pressure of water. If I knew Mr. H. M.'s address, I would write him instead of bothering you. If you will give me his address, I think I can do him and his neighbors some good. Enclosed I send you a card, by which you will see that we manufacture an article of stone pipe, which is the best conductor for water, gas, sewerage, &c., in existence. Water may be conducted through our pipe, ten, twenty or one hundred miles, and discharge itself just as pure as when it leaves the spring. The pipe is made of potter's clay, and burned, so that it is as hard as the hardest kind of *hard-heads*, and glazed so that it is impervious to water. It is made in joints about 21 inches in length, with socket at one end and tenon on the other. A little good water-lime cement, put into the socket, and tenon set into it, will make a joint as tight as can possibly be made in iron pipe with lead, and the longer it lies in the ground, the harder it becomes. It is capable of sustaining a pressure of at least 500 pounds to an inch, and has been *subjected* to a test of a much greater pressure. It is next to impossible to get a head that will burst it.

I send you inclosed a small bit broken from an inch and a quarter pipe, that you may see what it is like. F. Adams. *Akron, O., June* 26, 1855.

The piece sent us is exceedingly hard, and much resembles stone. We have no doubt it would sustain a great pressure, and prove in other respects an admirable conduit.

Prof. Mapes and the Chilian Guano Fraud.

In the July number of the *Working Farmer*, its editor, J. J. Mapes, essays to reply to our article on the Chilian Guano Fraud, and in so doing, while he would have the public infer that he has not " an interest in the sale of this fertilizer," lets it leak out that he is connected with it, for otherwise how could he know that " the whole statement is a mis-representation, with a false and unfair array of facts?" The time is now come, perhaps, when we may call attention to the "*facts*," that *the Chilian guano is manufactured on the farm of Prof.* Mapes, *and in his improved superphosphate of lime manufactory* —that the men who make the one make the other, and that the teams of Mr. Mapes are engaged in carting the raw materials and the manufactured article from and to Newark. Such are the facts. We will not say that the Professor has any " interest in the *sale* of this fertilizer," but that he manufactures it, is quite certain; and it is highly probable that he feels a manufacturer's interest in its sale, especially as he has on hand several thousand tons of sugar-house scum, one of the principal ingredients of the mixture, and which, were the sales of the Chilian guano and of the *Nitrogenized* superphosphate of lime to cease, it might puzzle even the Professor to turn to any profitable account. While, therefore, we will not assert that Mr. Mapes is or is not *directly* interested in the sale of this fraudulent guano, we feel quite confident that, as its manufacturer, he is indirectly interested as much as Mr. Shelton, the actual vender of the article. One is interested in getting rid of his Mexican guano, the other in selling his worthless sugar-house scum at $35 to $40 per ton.

That we may do Mr. Mapes full justice we copy his entire article, as follows:

> The Country Gentleman.—This paper, after having had the falsehoods of its editor, Mr. Harris, contradicted by the affidavits of many individuals, again essays to attack us for having endorsed the assertions of Dr. A. A. Hayes of Massachusetts, in connection with a quality of the manure sold as Chilian Guano, and endeavoring insidiously and underhandedly, as usual, to impute to us an interest in the sale of this fertilizer. We are not aware of having at any time been called upon to endorse the opinions of Dr. Hayes, but we shall at all times be ready to give it as our opinion, that he may be classed amongst our ablest chemists, and entirely beyond the reach of Mr. Harris. We may have in some way spoken of Dr. Hayes, and if so, it has always been favorable to his ability, with which we are well acquainted.
>
> The whole statement in the *Country Gentleman*, which has been so generally copied by that portion of the agricultural press who use the slanders of others in preference to thoughts of their own, is a misrepresentation, with a false and unfair array of facts. and the deductions drawn by them from the analysis which they publish as connected with the article referred to, are as wanting in correctness as their assumption of fact.
>
> When Mr. Harris will learn to know the true value of such organic matter as is of animal origin, and the difference in value between carbonate of lime, resulting from the decomposition of the bones of a bird, as compared with that known as effete or slacked lime, he will then be capable of such a class of comment as he has attempted to give in relation to the opinions of Dr. Hayes and others; and whenever he shall satisfactorily answer the affidavits of 18 individuals published by us in March last, at p. 21 of the present volume, in which 14 falsehoods, previously published by Mr. Harris, are flatly contradicted, we may then decide to answer his attacks in detail—but until he establishes his character as a gentleman, instead of passing by these affidavits in silence, he will not be able to use our paper as an advertisement for his lucubrations by seeing that they are treated with such courtesy as we award to gentlemen only.

Mr. Mapes says: " *we are not aware of having at any time been called upon to endorse the opinions of* Dr. Hayes." As we have in our former articles stated, we copied the analyses of Dr. Hayes from the *Oxford* (Me.) *Democrat*, and the editor said they were " *endorsed by Prof.* Mapes." We had not seen the original circular or report of Dr. Hayes. Mr. Shelton sent us recently what we thought was a mutilated copy; and on a recent visit to Boston we succeeded in getting a perfect one. At the bottom of Dr. Hayes' report there is the following:

> Newark, N. J., Feb. 23, 1855.
>
> "I have examined the reports of Dr. Hayes on Chilian guano, as also the guano referred to, and fully concur in his favorable opinions of its merits.
>
> " J. J. Mapes,
> *Professor of Agricultural Chemistry.*"

Mr. Shelton *had neatly cut off this part from the copy sent us.* Did the two worthies expect to deceive us by this concerted action? They doubtless thought we should not be able to get a perfect copy of the report—and indeed we had no little difficulty in doing so—and that if Mapes denied having endorsed Dr. Hayes' report in his paper, and the endorsement was cut off the circular sent us, we should inquire no farther, and conclude that the *Oxford Democrat* had made a mistake. Had it not been for this *concerted* denial of the endorsement, we might have charitably concluded that Prof. Mapes had forgotten that he ever wrote it. We can see no way for Mapes to escape conviction of *deliberate falsehood*, except to prove that Mr. Shelton *forged the endorsement.* Men engaged in fraudulent trade will generally go as far as the law will let them, but we cannot believe that Mr. Shelton would be guilty of such an act. His reputation in Boston is that of an honorable and respectable man. And we would again urge him to break with his associate Mapes, and make a full confession of the whole transaction. He may possibly in this way save himself from the obloquy which cannot fail to rest on all connected with what we believe to be the *first* systematic attempt at adulterating or manufacturing guano, in this country.

So much for the first point of Mr. Mapes' defence. The second is simply an assertion that our analyses are erroneous and our statements false, but no evidence is adduced to sustain the charge. The third point refers to the Professor's new doctrine of "*progressive ultimates*," got up we suppose for this special purpose. It is absurdly ridiculous, and altogether beneath notice, but even this theory will not save the Professor, for the "organic matter" of the Chilian guano is *not* "of animal origin." *It is sugar-house scum.* The carbonate of lime, too, does not result from the " decomposition of the bones of a bird." It consists principally of fine pieces of coral, and is worth no more than so much " effete or slaked lime." In fact it is not worth as much as " slaked lime," for we beg leave to inform the Professor that " slaked lime " is a *hydrate* and not a *carbonate* of lime.

In regard to the " affidavits of 18 individuals published in March last," we would inform Mr. Mapes that soon after they appeared we wrote a reply to them, but, as this Chilian guano fraud came under our notice a few days afterwards, it was thought best to delay its publication. It lies in our drawer and may yet someday see the light. It exhibits Mr. Mapes' character in no enviable light. It is easy to draw up a statement so worded that, while essentially false, 18 of the lowest and most ignorant Dutch and Irish men—many of whom cannot speak our language—could be persuaded to believe true, and to make affidavit accordingly. Meeting, however, a short time after the publication of this affidavit, with one of the most intelligent men from the factory, we asked him how it was that he could swear to such and such things. He replied that he "*never did.*" That there were several things in the statement read over to him which he could not swear to, and that he had them altered, but that when the affidavit came out (it was not published till nine months after it was taken) he was surprised to find that these erasures were left in, and indeed he thought there were several additional statements which he did not and could not swear to. We might easily refute most of the statements of this affidavit, but there is nothing to be gained by it except a vindication of our veracity, and we leave that to time and a discerning public.

Whatever Mr. Mapes has laid and can lay to our charge, we will endeavor to bear; but we would just remind him that even should he succeed in criminating us, it would not clear himself. The public will expect from him some satisfactory explanation of his connection with this fraud in guano. They will be anxious to see how he can reconcile with truth his *endorsement* of a report stating a guano to "come from the coast of Chili," which he knew to be manufactured in his own factory, on his own farm at Newark, and also how he came to deliberately deny having made this endorsement. We pause for a reply.

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Making Cheese from a Few Cows.

Except in the dairy districts, how seldom do we meet with good cheese on a farmer's table; how often do we meet with none at all. And yet every farmer keeps a few cows, sufficient at least to supply the family, with butter through the year, and there is no reason why every one who keeps two or three cows should not make *good* cheese enough for his own use. More labor indeed, is required to make a pound of cheese from a small dairy than from a large one, but this is no excuse for not making it, since the same is true, to a certain extent at least, in regard to butter.

Some of our readers who make an hundred pound cheese every morning, will be inclined to smile at the following directions; but nevertheless, we can assure them that we have eaten the best of cheese made in this way. There are probably many better methods, and if our readers know of any we should be thankful to hear from them.

The difference between making cheese from a small and from a large dairy consists principally in this. In a large dairy the curd is made into a cheese every day, while in the small dairy the curd—obtained precisely as in the large dairy—is slightly pressed and laid by in a cool place till a sufficient quantity is obtained for making a cheese as large as desired.

The night's milk should be kept as cool as possible, and the next morning placed in a tub, together with the morning's milk; and the whole, by adding a portion of heated milk, raised to about 90° Fahr. The rennet is then added, the milk well stirred, and afterwards let alone till the curd is well come. The time this occupies varies from fifteen minutes to two hours, according to the amount of rennet, temperature, &c.—the warmer it is put together, and the more rennet there is added, the quicker will the cheese come. As a general rule the longer it is in coming, the tenderer and sweeter will be the curd. We should seldom desire it to come sooner than 40 minutes after the rennet is added.

When the curd is come, it is broken up quite fine either by hand, or by a curd breaker, which cuts it into very small pieces. After this it is allowed to stand and settle. Some persons at this stage raise the temperature of the whey and curd up to 95° or 100°. This is called "scalding." The practice has its advantages, and disadvantages. If the milk is warm enough when the rennet is added, it may be dispensed with; if too cool, it may be required. If it is desired to sell the cheese when a month or six weeks old, high scalding is indispensable, but in making good cheese for home use, we should scald very little if at all.

The curd is easily separated from the whey by throwing the whole into a sieve or on to a cheese cloth. The curd is then placed in a strong cloth, and well pressed to remove as much of the whey as possible. This is very important. It is then placed in a cool place, and the operation repeated daily,—or every other day, if the milk will keep sweet, as it will in a cool cellar in the fall.

When sufficient curd is obtained in this way to make a cheese of the desired size, it is all mixed together, broken quite fine, and salted. It must then be pressed for a few hours; a clean dry cloth put round it, inverted and pressed again. At first it should not have too heavy a pressure put on it, but it cannot be pressed too dry. It should have dry cloths put round it and kept under the press till it does not wet them. Many will object to so much pressure, but we speak from experience and with much confidence on this point. Less scalding, and more pressure would, in our opinion, add greatly to the *real* value, and cheese-like flavor; though perhaps not to the buttery appearance and *saleable* qualities of most American cheeses.

When the cheese is taken from the press it should have a little salt put on it, and be kept in the dairy, or other cool moist place for a few days. It may then be taken to a dry room, where for the first week or two it must be turned every day, or the side next the floor will mould. The room should be well ventilated and nearly dark.

Lightning Rods.

Messrs. Editors—I have just finished erecting a lightning rod according to the directions in your "Rural Register," and it is a great wonder to almost every one that sees it. I put it upon our barn, which is 50 feet long, and the rod projects above the barn 13 feet. The part above the barn is composed of two bars of iron ⅜ths of an inch square, twisted together and sharpened at the top, and both welded together at the bottom, and a screw cut on them, to fasten them to the next rod. The rest of the rod is composed of round bars of iron, half an inch in diameter, and screwed together. I dug a hole in the ground four feet deep, for the bottom of the rod, and threw in about a bushel of charcoal, and put in the rod and filled it again. The rod goes through painted wooden supports, six inches from the building. And now if the rod does good service, I can say that taking your paper has saved us at least four dollars, for it would have cost us $4 more to have hired it erected by the rod peddlers that travel around this country.

If the lightning strikes it, and runs through the wooden supports into the building, the neighbors will be ready to exclaim, "It is just what I expected." One man came along when I was at work at it, and told me he expected the barn would be struck and burnt in a few weeks. If the barn burns, I will be apt to let you know it. J. Case. *Spencerville, Ind.*

Unless the soil is unusually and *permanently* moist, we think four feet hardly deep enough, and would still recommend our correspondent to dig six or seven feet deep, bend up the bottom of the rod into a small hook or loop, on which to hang two or three short rods or bars running down two or three feet further, and spreading from each other.

As for the electric fluid passing through the dry wooden supports into the building and firing it, when there is a good communication to moist earth, the thing is perfectly preposterous, and the slightest fears need not be entertained on this point. The heaviest explosion we ever knew, and which *melted into a ball* the tip of the rod which it struck, passed down through such supports into the earth, without the slightest trace of any diversion from its course. Eds.

Best Six Apples.

I would request you to give a list through The Cultivator, of the best six varieties of summer, autumn, and winter apples, to supply the market; uniform and fair productiveness not to be overlooked. I mean best adapted to this section of country, viz., western Pennsylvania. John Porter. *Pittsburgh, Pa.*

We would recommend the following varieties—*some* of which *local* experience may change to others.

Summer. Early Harvest and Sweet Bough—or if sweet apple is not desired, substitute Summer Queen.

Autumn. Autumn Strawberry and Gravenstein. The Fall Pippin is an excellent sort, but not productive; the Rambo very productive, but not showy enough for market.

Winter. Rhode Island Greening and Baldwin. The latter, although extremely productive, is poor in some localities, and might be substituted by Esopus Spitzenburgh, exceedingly high flavored, but a moderate bearer; or by Roxbury Russet, a great bearer, but of inferior quality.

Age of Trees for Bearing.

Please inform me through the columns of your valuable periodical, "The Cultivator," at what age from the graft or bud, apple, peach, pear, plum, cherry, apricot, nectarine, quince and chestnut trees, commence bearing fruit, under good cultivation, and other circumstances being favorable. I have reference to both standard and dwarf trees. P. A. *Cynthiana, Ky.*

There are many controlling influences, that cause a great variation in the time of bearing. Trees under the best cultivation, will, as a general rule, begin bearing from two to six years after being set out, if standards; and in one half to two thirds of that time, if dwarfs. Badly managed, they might be three times as long, before giving crops; and if totally neglected, especially if they should die, the owner need not trouble himself to look for any crop at all.

But there are other modifying influences besides these. Some *varieties* bear fruit much sooner than others. The Julienne pear, for instance, even if on pear roots, will often bear when only four or five feet high, and it is not unusual to see whole rows of young trees in the nursery, loaded with pears. It is rare for the Bartlett, with good treatment, to continue more than two or three years from setting out, without producing some fruit. On the other hand, the Tyson and some others, may be ten or twelve years without a pear.

There is not quite so much difference in the different sorts of the apple—but still, some, for example the Dyer, will bear in one fourth the time required for the Northern Spy, and a few others.

There is still less variations in peaches,—most varieties coming into bearing in two or three years after transplanting, with fair cultivation. A few years since we set out a row of twenty different sorts, the trees at the time being two years from the bud. They received clean cultivation, no kind of crop being allowed to grow beneath them. The third summer, all or nearly all bore; and the greatest bearer among them furnished three pecks of fine ruddy peaches. Others in the same neighborhood, set out at the same time, but in grass ground, and totally neglected, lingered about an equal period, and then died.

Again,—in the fertile soils and under the warm suns of the southern and western states, fruit trees often bear in about half the time the same sorts produce crops at the north. In other instances, too much fertility prevents the formation of fruit until the vigor of the tree is checked.

All these influences operate in producing exceedingly varying periods of time; and experience alone, in connection with a knowledge of these, will enable our correspondent to judge in the matter.

Cherries, apricots, and plums, bear in about the same time as peaches. Quinces being of slower growth, require a longer period. We do not know precisely the age for chestnuts, but it is usually still longer.

On the Agricultural Value of Gypsum.

BY SAMUEL W. JOHNSON.

No. II.—Results of Experience—Its Supposed Exhaustive Effect.

Influence of the soil on the action of plaster. The character of the soil must necessarily greatly affect the operation of this fertilizer.

A soil already rich in sulphate of lime, of course cannot be greatly benefited by addition of more.

A poor, light or exhausted soil, deficient in mineral plant-food, as phosphoric acid, potash, &c., cannot be expected to become fertile by treatment with plaster, for this substance cannot supply those matters which are wanting, and without which no plant can flourish.

Cold, wet, heavy, and impenetrable soils, are usually almost unaffected by plaster; sometimes its use has been apparently disadvantageous on them.

Porous soils, either sandy or loamy, which readily dry after rains, and which are well dunged, experience the most benefit from plastering.

Excess of moisture, and *poverty of the soil*, are the chief hindrances to the action of gypsum.

On lime and chalk soils, it is no less effectual than on others.

In general it may be stated that unless the other conditions of good culture be observed and provided for, the farmer who uses gypsum will " lose his money and his trouble."

It is undoubtedly a fact that the circumstances, which insure the best effect from gypsum, are nearly identical with those which are otherwise most favorable to vegetable growth.

Effect of Climate and Weather. Countries like South England, the greater part of France, Bohemia, &c., where, on account of the vicinity of the sea, or the existence of forest and hill ranges, the climate is uniform, and where, during the growing-season, the rain-falls are frequent but moderate,—where, in other words, it is neither too wet nor too dry, there gypsum stands in greatest favor. It is doubtless the fact that the frequent wetting of the soil assists the action of plaster by bringing it into solution; yet the weather probably exerts more influence on the plant itself, directly, than on the action of the plaster with which it is manured. Climate modifies the conditions of vegetable growth to a wonderful degree. In the more northern part of our temperate zone, a stiff clay soil is very intractable and unproductive, while in Egypt, where it never rains, a similar soil yields the most profitable returns. We should, therefore, expect to hear from a Canadian farmer that plaster has little good effect on clay soils, while in the warmer south, they might be benefited most of all.

Quantity and time of application. In England and Germany, it has been found that 250 to 400 lbs. per acre, is the best quantity to apply. The advantage of larger applications is usually very inconsiderable.

Gypsum is usually applied in the spring, and in case of clover, &c., when the vegetation is 3 to 4 inches high. In the United States it is applied to corn and potatoes in the hill at planting, but more frequently when they have attained the above mentioned height.

Many farmers are of opinion that plaster acts best when it remains adhering to the leaves for some time. Accordingly, it is highly recommended to sow plaster just before or after a gentle rain, or when the dew is on the plants. Warm, moist weather ensures the full action of plaster. If the weather be cold at the time of sowing, its effect is stated to be very insignificant. This is, however, doubtful. In Germany the 1st of May is generally considered the best season for plastering, and experiments made in Saxony, especially to ascertain the most favorable time, have confirmed the opinion. Not a few, however, deem it indifferent whether the plaster adhere to the plant, or fall directly upon the soil.

DOMBASLE employed the following method: He plastered his meadows at the time of seeding, and repeated the dose in the following spring. Clover treated in this way, grew very luxuriantly, sometimes even to the detriment of the grain with which it was sown. It is reported that clover thus plastered is less injured by frosts, and is ready to cut a week or two earlier than when gypsum is not applied.

Duration of effect. According to GIRARDIN, "experience has established that plastering (of clover?) should not be repeated oftener than once in 5 or 6 years, if any action is to be expected from it." Other writers agree in admitting that its benefit continues nearly or quite as long. Its effect has often been observed to be greater the second than the first year after application, and is often unabated the third season. The duration of its action is doubtless somewhat dependant on the quantity applied, and must be materially influenced by the weather in the second, third, and following seasons, as well as in the first.

I have thus given a condensed statement of the results and opinions of practical men relative to the use of plaster. The conclusions adopted are those which are sustained by the majority of facts. It is apparent what uncertainty prevails in our knowledge of this subject. It remains by means of new and more careful observations, and by more rigid experiments, to determine the actual value of these statements and to acquire additional information.

Hundreds of single results that have been published are of no value whatever in deducing general rules, because the vagueness of many agricultural terms, makes it impossible to know what degree of truth a statement possesses. A soil is a very complex thing, and may include many conditions which effect the action of a fertilizer, yet in a report of a trial of plaster we find nothing written of the soil except the prefix clayey, or sandy, or loamy. The important characteristics upon which the whole result of the experiment hinges may never be recognized nor mentioned, and hence while the fact is true that the crop was benefitted or not, we have no logical ground to assume that any of the mentioned causes or circumstances, had any thing to do with the effect, more than a number of other unnoticed causes which must have been present and operative.

Admitting that much remains to be learned, still it is evident that for practical purposes so much may be accepted, viz.

1st. Leguminous plants are especially benefited by plaster, while—

2d. All other plants of large foliage whose agricultural value does not consist in the production of seed, are usually aided by it in growth, upon—

3d. Soils not already containing sulphate of lime, but—

4th. In which all other forms of mineral plant-food are present in available form, and in sufficient quantity; which are in practical language, *well dunged*, if not rich without manure, and which, further,

5th. Present no physical obstacles to vegetable growth—which are dry, sufficiently porous, and well tilled when—

6th. The climate and weather* are favorable to vegetation when the temperature is mild and rains are frequent but moderate.

A couple more illustrations may be useful. In the North Eastern part of Bavaria where the *climate is good*, there are considerable tracts, where clover does not flourish and where plaster does not usually assist its growth. The popular opinion is that its influence is detrimental rather than useful, that it brings in sorrel, which extirpates the clover. The fact is that the *soils of this region are quite thin and poor*, and are not made rich by mere additions of sulphate of lime. Why sorrel comes in is not clear.

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* *Climate* is the weather of the year and century. *Weather* is the climate of the season and day.

In upper Lusatia in Saxony,*soil and climate unite* to produce conditions which hinder the action of gypsum. There the soil is either a gravelly sand, or a heavy ferruginous clay; loamy soils scarcely occur. The climate is irregular, in summer the weather is dry and from the prevalence of strong, raw winds, moderate showers are not frequent, but the rain falls mostly in sudden and violent storms. Here clover grows but poorly, and it could not be expected that plaster would help it!

Does plaster exhaust the soil? This frequently asked question is easily answered, and by the word *no*. A soil is never exhausted by what is added to it. But always by what is removed. But a little explanation is needed, for although plaster cannot exhaust the soil, plastering usually is *followed* by exhaustion, and for the simple reason that by its use nothing but sulphate of lime (ammonia indirectly?) is added, while phosphoric acid, potash, silica, &c., are removed. A purse soon gets empty if eagles are constantly taken out, though cents be now and then put in. The *crops* which plaster enables the farmer to remove from the soil, exhaust it. Suppose that a few bushels of plaster raise the yield of clover upon a field 10 per ct.; then 10 per ct. more of phosphoric acid, potash, &c. pass from the soil into the crop, than would have passed had no plaster been used. If plaster only be added, then the field will be exhausted in one-tenth less time than if nothing at all had been applied. In both cases the total amount of vegetation produced until exhaustion supervenes, will be the same, and the amount of exhaustion the same. In the one instance the final result might be reached in 10 years; in the other in 9 years. The difference is merely one of time.*

If benefit is to be derived from the use of plaster, it must be accompanied with other manure, or its action however good at first, will ultimately cease. Manuring a poor soil with nothing but plaster, is attempting to sustain vegetation on plaster alone; and this, like feeding children on little else than arrow-root, is a stupendous folly. It is trying to build brick houses without brick. Plants cannot be made of sulphate of lime, any more than men can be made out of starch. "Out of nothing, nothing comes."

The healthy plant is the result of the co-operation of many causes, the coincidence of many conditions. One cause,one condition can only act favorably when all the others but this are present. There is, there can be, no agricultural panacea.

In the next article will be discussed the theory of the action of plaster—the reasons why it benefits crops, and the method of its operation. *Munich, March* '55.

Planting Corn—A Corn Marker.

Messrs. Editors—A correspondent of yours, writing from Setauket, L. I., describes the process of plowing the ground and planting corn, in his vicinity, and asks to be informed of a better way. I will, therefore, tell how *some* people plant corn here with us. First, the ground should be deeply plowed, and in such a way that the furrows all shut down flat, and do not ride one another; then follow with a harrow, or two-horse cultivator, until the ground is perfectly mellow. The next step is to mark it. For this purpose take an ordinary fence board, 6 inches wide by 16 feet long, and on one side of it nail pieces of two inch stuff, 4 inches wide and 6 inches long, (rounded at one end like a sled runner,) crosswise the board, at such distances as is wanted to plant the corn. Then about 4 feet from each end of the board, bore holes, into which short pieces of rope may be put, to fasten to the horse's traces; then again bore two holes, two or three feet apart, in the centre of the board, in a slanting manner, into which handles should be inserted, by which to guide the machine. Then with a boy on the horse, or with the lines around your back, proceed to mark the ground crosswise from what it was plowed; and to do this well, let the harrow, the last time over, go the same way the ground was plowed,otherwise the harrow marks might be taken for those of the marker.

Thus, with a marker 16 feet long, you could mark 15 acres of ground in half a day. After the ground is marked, if you are ready to plant, take a horse and ordinary sized plow, and plow out the furrows, (as deep as may be without throwing up the sod,) crosswise the marks, which can be done with great accuracy after a little practice, and let the men follow with the manure, dropping it in the intersections. This will, I think, for ease and accuracy, suit your correspondent, and with moderate labor, he would probably plant the *whole* of a 19 acre lot before any of it was up, especially if the season is as cold as the present. H. *Bridghampton, L. I.*

Manure Leach for Gardens.

Last summer, during the drouth, I used for watering my kitchen garden, an arrangement which worked so well that I am tempted to add it to your list of similar fixtures.

First a hogshead (an old sugar cask,) was reared upon a platform exactly as for a leach, at a place convenient for pouring upon it the warm washing suds and other water; and below it, to catch the liquid, was set a tub of several pails capacity. The cask was filled with rich well rotted manure. The arrangement thus completed, all the suds, warm from the washing, was poured upon the manure, which on its way through the leach, carried with it the soluble aliment for the plants. This liquid was dipped out and distributed as necessity required, and the result was a good garden on a poor piece of land, notwithstanding the drouth.

To absorb all offensive odors and volatile gases, the manure in the leach was covered with gypsum. Lime should not be used. A small garden engine would be the proper mode of distributing it. Gurdon Evans.

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Incombustible Wash for the Roofs and Walls of Buildings.—Take of common water a quantity proportionate to the surface to be protected, and stir in potash as long as it will dissolve. When the water is perfectly saturated, stir in first, a quantity of pure clay to render the mass as thick as cream. When the ingredients are well mixed, the preparation is to be applied to the wood, and will be found efficient in protecting it from the action of both fire and rain. It is asserted by those who have tested its value, that wood work exposed to intense heat, if coated with this cement, may be charred or carbonated, but cannot be made to burn.

When desirable, a very agreeable color may be imparted to the wash by adding a small quantity of red or yellow ochre.

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*The supposed results are of course not assumed to be exact, but serve the illustration.

Hints on Harvesting.

It has been recommended to cut wheat three weeks or a month before it is fully ripe, and we have known those who have done so, but who will never do it again, the shrinkage and loss being very considerable. On the other hand, there can be no doubt that after a certain point, a portion of the starch of the grain is converted into woody fibre, and the flouring qualities materially impaired. The object of the judicious farmer will be to avoid the two extremes. We do not know that modern science has given us any better rule for determining the proper time to cut wheat than that which an old practical English farmer once gave us, and which he probably obtained from the agricultural traditions of his sage and observing ancestors. "Wheat," said he, "will do to cut when you can squeeze a kernel between the first joint of the thumb and fore finger, *and there comes out no sap*." In other words, as soon as circulation in the grain has ceased, it can derive no more nutriment from the straw, and the sooner it is cut the better, in order to prevent the change of starch into woody fibre or bran. Reaping machines have done away with the necessity of commencing to cut too early in order to get through before the grain becomes so ripe as to shed, and every one can cut just at the proper time.

This year, owing to abundant rains and cool weather, there will be an unusual quantity of straw, which will require more than ordinary time to season before it is in proper condition to stack. It is said that an inch of straw near the ground is worth as much as three inches immediately below the ear, and we have frequently been surprised that, in the older states, where straw is scarce and valuable, the stubbles are left so high. In the west this year, however, there will be some excuse for cutting as little straw, grass, &c. with the grain as possible, since less time is required to cure it, and the labor of carting, stacking, threshing, &c., is much less. Nevertheless, every one should make it a special point to keep all the stock he can keep well in the winter, and to do this he must carefully harvest all the straw, clover, grass, &c., of his grain crops.

A gentleman who has spent some time in Europe, said to us lately, "There is one thing in which the English *do* beat us, and no mistake, and that is in stacking their grain. They seldom put any grain in barns, and every farm has an enclosed portion of land near the barn, called the stack-yard. In this they have strong wooden frames, placed two and a half to three feet above the ground, and resting on stone pillars, and capped so that mice and rats cannot get into the wheat stacks which are made upon these frames. They seldom stack any wheat on the ground, but when they do, it is astonishing what a difference there is at threshing time between it and the same kind of wheat placed on the frames, so that the air can permeate through it." All this is true, and, while we are happily under no necessity of using so much caution against dampness in stacking grain as the British farmer, yet we should do well to avoid the too common practice of stacking grain, hay, corn-stalks, &c., on the bare ground. A few rails and some cord-wood make excellent stack-bottoms, when covered with a little straw; indeed they may be so placed as to make a temporary frame through which the air may circulate between the stack and the ground.

Barley is quite ripe enough to cut when the reddish color on the ear has disappeared. When fully ripe the ear bends down to the straw, and is very apt to fall off in mowing, turning, &c., occasioning much loss; while if cut too early it shrinks considerably, and is not so good for malting purposes. English writers, while fully admitting that in allowing barley to get fully ripe there is much loss, advocate the practice on the ground that it is next to impossible in any other way to get that *evenness* so necessary for malting purposes.

With a heavy crop of straw, we prefer always to bind up the barley into sheaves. The first expense is more, but there is less loss, and far less labor in carting, stacking and threshing. With light crops, if the barley was rolled—as it always should be—and the ground is smooth, it is doubtless the most economical mode to mow it, and stack it loose. It will need turning in the swath, and with a light crop this may be done with a hand-rake, and the loose barley between the swaths raked together at the same time. Barley needs considerable time in the field before the grain and straw is sufficiently dry and hard to stack. Barley straw, when not too ripe, we consider quite nutritious, but it must not be carried too soon, or, besides the injury to the grain, it will heat in the stack and be spoiled. Morton's Cyclopedia of Agriculture, just published, says: "Barley requires from ten days to a fortnight of good weather to bring it into proper condition for being stacked, and in damp, hazy weather, considerably longer." Fortunately, such a rule, though applicable to Great Britain, does not hold good here, but we should do well to give barley sufficient time before stacking.

Oats, in the northern states, are a more important crop than barley, but it must be confessed they are generally of a rather inferior quality. This is perhaps owing to the practice of cultivating them on low, light, mucky soils, which, while they produce an abundance of straw, do not yield the heaviest grain. The earlier varieties, if not cut before they reach maturity, will always shell out considerably in harvesting, however much care may be used. Late oats may be allowed to ripen with less danger in this respect. When oats are grown for consumption on the farm by horses, we prefer to cut them rather green, bind them up in small sheaves, cure them thoroughly, and then cut them up, straw and all, as they are wanted for feed. To obtain the heaviest and best oats for market, however, it is necessary to let them get nearly ripe, so ripe, in fact, that a few of the lowest berries in the ear will shell out in harvesting. We know this is opposed to the teachings of most agricultural writers, but we state it with some confidence as the opinion of an experienced and successful farmer.

We need hardly say that much grain is considerably damaged every year by being imperfectly covered in the stacks, and, although when threshing is done in a few weeks after harvest, it will not pay to thatch them thoroughly, yet it certainly does not pay to let the rain get into the stacks. In making the stacks the middle should be kept quite full as the top is approached, so that the grain of the whole roof shall shelve off from the centre. In this way, when carefully covered, little damage will be done by ordinary rains. We throw out these desultory and hasty hints rather for the purpose of inducing farmers to think on the subject, than to offer rules for general adoption.

Deep and Shallow Plowing.

Messrs. Editors—Since sending you mine of the 4th inst., I have read Mr. Brewer's second communication in the Country Gentleman, in relation to deep and shallow plowing, in which he cites one instance where he has been greatly benefitted by the former, though still adhering to his first position, that in general, shallow is better and more profitable than deep plowing. From a careful perusal of both communications, I am unable to arrive at any other conclusion than the one advanced in my last, viz: Mr. Brewer has not given the modern system of deep plowing that fair, systematic and persevering trial which its importance demands, and which should be done in order to test with accuracy its ulterior effect upon the profits of farming. I admit that for *one* crop of corn, and probably for the crop that follows, 4 to 6 inches is better than 10, and I stated the reasons in my last why it is so; but patience and perseverance are necessary, and with the exercise of these sterling virtues, which is indispensable to success in farming as well as in other kinds of business, Mr. Brewer, or any one else, will find a ten-inch soil, well pulverized and enriched by manuring, vastly more profitable in the long run than a four-inch soil. The crust which forms under the surface soil by shallow plowing, which I found upon my farm, and which Mr. Brewer speaks of deriving so much benefit by breaking with the subsoil plow upon a part of his farm, should in my opinion be always broken whenever found to exist in any kind of soil whatever, wet or dry, sandy or clayey; and I have yet to learn that after getting a ten-inch soil, it requires more manure for a good or a great crop of corn than it does on a four-inch soil.

I am, however, not much in favor of subsoiling, particularly on alluvion, or any soils free from hard-pan; the expense of team to subsoil to the depth of 16 to 20 inches, is more than would generally be repaid in the production over a ten or twelve inch soil, which can be readily obtained by one of the modern single plows of the deep-tiller class.

Mr. Brewer writes like a sensible man, and a practical and energetic farmer, which I have do doubt he is; but he must pardon me for dissenting widely from his opinion upon this subject. We have both been guided by practice, and have arrived at different conclusions; but has not the practice of the one in a particular direction, been longer tested, more closely and constantly pursued? and may not this account in some measure for this disparity of opinion? And again, there may be, and probably is, a wide dissimilarity in the soils and climate of our localities; the lands in his section of country may not have been so long cultivated, may not have yet lost their virgin fertility, and there may not be the necessity for deep cultivation there that there is here, and whenever it is tried there, the effects may not be so visible as they are here. I would treat Mr. Brewer's opinion with deference and respect, but to say that his views of plowing are best suited to the older cultivated portions of our country, is more than I can conscientiously suscribe to.

When lands are new and first brought under cultivation, if the soil possesses the natural elements of fertility, it matters not much what the process is, provided seed time and harvest are attended to, the product will be abundant; but after the lapse of a century it is not so: a renovating process must be pursued, or the lands become worthless; as the natural fertility fails upon the surface, which in time it most assuredly will, we must go into the stratum of earth below, which possesses equal powers of production when assimilated and mixed up with the surface soil, and by a constant and steady practice of this kind, with a rotation of crops and a return to the soil of the manure made from the crops taken out of it, we can ever keep our lands in a profitable and productive condition.

Messrs. Editors, have you or some of your readers ever noticed where the earth has been thrown out by the digging of a well for water to the depth of 25 feet or over? and if so, have you not noticed the luxuriant growth of weeds and grass that would spring out of this earth after a few years exposure to the sun and atmosphere? Now this dirt has lain dormant since the creation, in the bowels of the earth far below where the plow can ever reach, yet when brought to the surface and exposed to light, heat, and frosts, and other atmospheric influences which we know not of, becomes as productive as the surface soil was in its virgin nativity. I mention this as one fact which goes conclusively to prove the position I have taken. Then, again I would say, with most others who write for agricultural papers, Plow deep, manure generously, cultivate thoroughly, and in so doing you will find your reward. J. W. Colburne. *Springfield, Vt.*

Stacking Corn Stalks.—A correspondent of the *Boston Cultivator* has tried various methods of curing his corn-stalks, but without satisfactory success. Last fall after the stalks were sufficiently cured, he carted them into the barn, and instead of setting them up, as formerly, he packed them down and on every layer of stalks put a layer of fine salt, say a bushel to a ton. The cattle eat them up clean and he is satisfied with the result.

Corns.—Soak the feet in warm water, pare off as much as possible the horny part of the corn, then lay upon it a moistened wafer, and again upon this a piece of buckskin, with a hole cut through it the size of the corn. Renew the moist wafer twice a day, and in a very few days the corn will work out. This cure is complete.

Peas as a Manure for Wheat.

The *Southern Planter* gives an interesting account of the effects of peas plowed under as a manure for wheat, on the farm of Mr. MATTHEWS, situated on the Chickahominy, five miles from Richmond, Va. Mr. M. purchased the land in 1849, and seeded a particular field in wheat, in the fall of that year. Its crop was not measured separately, but it did not exceed seven bushels per acre as a maximum. In the month of July, before the shocks of wheat were hauled out of the field, peas were sown on this field, at the rate of one bushel per acre, broadcast on the stubble, plowed in with a one horse plow followed by a harrow. The peas were plowed under from the 20th of September out, and wheat sown, upon the land. The produce was 12½ bushels of good wheat per acre.

In 1852, the land was planted in corn and made six barrels per acre, and was again sown in wheat. In 1853, the wheat yielded 16 bushels per acre, and was followed by peas and wheat as before. In 1854 the crop of wheat was 23 bushels per acre, and was again followed by the peas and wheat. In 1855, "the wheat is cut short by the drouth, but from what we saw it is safe to estimate that in a fair season it would have made 25 bushels per acre." No manure has been applied to the soil except what the peas furnished.

We see in these interesting facts, confirmation of our views in regard to the destruction of ammonia by the growth of wheat, and of its preservation by the growth of peas, clover, turnips, &c. We have earnestly and repeatedly advocated the extensive cultivation of these crops in alternation with wheat, corn, &c. We are not prepared to say that *all* the increase of wheat obtained by Mr. Matthews, is due to the ammonia obtained from the atmosphere and rain water by the peas; for probably an improved system of tillage, pulverization of the soil, &c., had something to do with it, but it is evident that the increase is mainly due to this cause. This explanation is the only one consistent with the generally received facts of practical agriculture and the indications of scientific experiments. But whatever the cause of the increase may be, the fact, that peas grown and plowed in for wheat give a considerable increase, cannot be doubted, and farmers would do well to act upon it.

There are those who think such a system will speedily exhaust the soil. We are compelled to differ from them. It may *impoverish* the soil more speedily of the mineral food of plants, but it does this because it gives proportionately greater crops. The production of a hundred bushels of wheat impoverishes the soil in the one case no more than in the other. If a soil contains an abundance of the mineral elements of plants, we see no folly in enabling the plants to take them up by an increased supply of ammonia. These mineral elements are the dead capital of the farm, and we are desirous of converting as much of it as possible, into active circulation; and should the time come when these mineral elements were deficient, sufficient for a bushel of wheat may be supplied for six cents, at most; whereas we cannot buy ammonia, sufficient for the production of a bushel of wheat, for less than eighty cents. Is it not wise, then, for the farmer to grow, while he can, clover and peas, which when consumed by animals on the farm, and the manure returned to the land, or when plowed directly under as in the case of Mr. Matthews, furnish the wheat and corn with the expensive ammonia they require in such large quantity.

◆

Cultivation of Celery.

The principal difficulty in raising large and well bleached celery is to get the plants early, and sufficiently stocky. This is best accomplished by sowing them early in the spring in a hot bed, and when an inch high transplanting them into a cold frame, and afterwards transplanting them into a warm border where they can remain till the trenches are ready for them. This will seem more labor than most people are willing to bestow, but frequent transplanting is the only way to get strong, healthy plants that will receive little check when planted in the trenches during our hot June and July weather.

In making the trenches the soil should be thrown out at least two feet deep, and twelve inches wide at the bottom; the first six inches being placed on one side, so that it can be used for covering the manure. Good leaf compost, or "spit manure" as the London gardeners say, from old hot beds, or, what is still better, the liquid and solid droppings from a manure cellar well composted with thoroughly decomposed peat should be put at the bottom of the trench about six inches thick, and covered with about six inches of rich, light, surface soil. Let the plants be well watered 24 hours before transplanting, and take them up with a ball of earth round the roots, and they will receive little or no check. Good superphosphate of lime either in solution or mixed with the soil before transplanting has a very beneficial effect, in giving the celery an early start. We have also used with great advantage Peruvian guano, applied in a weak solution, say a teaspoonful to two gallons of water. Celery is a gross feeder, and revels in ammoniacal manures, and the well decomposed organic matter or humus of dung, leaves, peat, &c. The soil should be kept constantly stirred till the plants have got a good start, and it is not well to be in too much hurry to commence earthing up.

It is, indeed, a disputed point whether it is best to earth up at several times during the season as the plants grow, or to do it at once, when they have nearly done growing, late in the fall. We have always adopted the former practice, and have had good success; and, on this account, are inclined to recommend it. In earthing up, care should be taken that the soil does not get between the stalks, and it is not well to press it too tightly round the plants at first.

In England, celery is allowed to remain in the ground all winter; but from the greater severity of our winters, it is better, here at the North at least, to take it up after it has done growing, and stow it away in the cellar

Exhibition of Stock in Paris.

We have not yet received a full report of the exhibition of agricultural stock in Paris in connection with the Palais de l' Industrie, but glean a few particulars from an interesting account by the editor of the *North British Agriculturist* who attended it. The exhibition was held in the Champs de Mars, Paris. The showyard presented a gay appearance. The taste displayed in the arrangement—the combining of trees, flowers and fountains for effect—the number of well dressed individuals—with the commingling of colors of the bright tints of the ladies' summer dresses—the rows of trees partially shading the showyard from the bright sun-shine—the whole presented a picture which will not soon be effaced from the memory of those, especially of strangers, who witnessed the exhibition.

The number of lots exhibited was about 1200, comprising nearly 2000 animals. In the several classes for Durhams (Short Horns) there was some 45 competitors from Great Britain and Ireland, and 29 with "pure Durhams bred in France." The competitors from England and Scotland carried off "nearly all the premiums for Durhams, Herefords, and Devons; of sheep, all the Leicester, Cotswold, and a considerable proportion of the South Downs. Of pigs they also carried off several of the prizes. The same as to poultry."

In Herefords, Devons and Sussex, the quality of the stock was very superior. A large number of Ayrshire cows were shown, but they were rather indifferent specimens of the breed. The Emperor exhibited three Ayrshires as extra stock; one of these a heifer, was "a beautiful creature." Several of the imperial establishments had cattle as extra stock exhibited, most of which were crosses between the Devon or Ayrshire, with native breeds. Of Dutch cattle there were few animals of even ordinary merit exhibited. Better specimens are frequently to be seen in Smithfield market. The Fribourg breed which extends over several of the Swiss Cantons is characterized by a bulkiness of bone which appears surprising. Color brown or black with large patches of white, face and back generally white. Some of them bear a likeness to the old herd of cows in Scotland with white face. They are fully larger than any native breed in the United Kingdom, not very level on the top, but evidently good milkers. They have a mildness and gentleness in their expression which speaks in unmistakable language that they are upon very intimate terms with their owners. The Schwitz, another Swiss breed remarkable as milk producers, are of a dark dun brown, with the under parts of a lighter color approaching to fawn or yellow. The price asked for these cattle was fully equal to that demanded for Short Horns. The cows were shod, and had been driven to the exhibition 600 miles. They were active and not apparently injured by the journey. They are, structurally, well adapted for travelling.

There was an indifferent show of French sheep, the Merino excepted. "The indigenous breeds of sheep in France must in time give place to other breeds. The same with reference to the pigs. The native breeds are not only offensively ugly, (ill-looking) but are often positively dangerous. The French are becoming every day more impressed with the value of the improved English breed of pigs." Of Leicester and Cotswold sheep the show was good. In South Downs the exhibition was superb. All the rams were shown by Messrs. Jonas Webb, Ellman and Rigden. Mr. W. sold about fifty, to be forwarded from England, at very high figures. The exhibition of goats was interesting from the curious breeds congregated. The beautiful goats from Cashmere, as well as some others, attracted many admirers. In poultry there was little competition.

The distribution of prizes took place in a pavillion erected for the occasion. The successful competitors with their servants were requested to be present, and upon their names being read they walked to the dais at which the minister and jury were seated; and received the tickets entitling them to the prize. The first name called was that of Lord Feversham, and he was cheered. The rest of the English, Dutch and Swiss prize takers were also received in the same kind manner. Mr. Jonas Webb was called upon so often that the reception he received towards the close was quite enthusiastic. A special medal of large size is to be struck for this worthy representative of the English Farmer. One very young lady of a pretty blond complexion was also very loudly cheered. The most interesting part of the ceremony was, however, that when the servants received their prizes. The honest blunt English Shepherds approached the dais for medals. These are of silver, and beautifully carved, having upon one side the likeness of the Emperor, &c. During the distribution of the prizes, which occupied two hours, an excellent military band enlivened the proceeding by playing national airs. When the name of Prince Albert was announced as a successful competitor the band gave "God Save the Queen," the whole company standing.

The demand for English stock was, upon the whole, good, and very fair prices were given for good animals for breeding. Indeed, it may be questioned if there were ever as many animals sold at any of the National Societies in the United Kingdom, and at as good prices. The Short Horns were in most demand. Mr. T. Ball, Ireland, sold his three heifers at the average price of $600. Nearly all the Herefords and Devons were sold. The best Cotswold rams were sold to a French nobleman for $150 each, and the three first prize ewes for $100 each. The pigs were in great demand, scarcely one animal returning to England. The first prize boar and sow, of the small breed, sold for $225 each.

The whole of the expenses of transit of the stock, or expenses incurred otherwise, have been repaid by the French Government to those exhibitors who made application, and some rather extravagant charges have been so refunded. The whole outlay to the French government is estimated at $60,000; the greater portion of which was expended in premiums.

Inquiries and Answers.

Bones.—*W. H. R.* See article on this subject, in Co. Gent., for June 7, p. 358.

Turnip Seed.—*W. H. R.* J. M. Thorburn & Co., New-York, import their turnip seed, and you can procure all the valuable varieties from them.

Vetches.—*T. E. Suliot, Franklin Mills, Ohio.* The general opinion appears to be that vetches will not flourish well in our dry hot summers. We apprehend however, that they have not had a thorough trial. If any of our readers have had experience with vetches either for soiling, for a green manure, or for seed, we should be pleased to hear from them.

Osage Orange.—Can you inform me if the Osage Orange Hedge is hardy enough to withstand the cold north-west winds of Eastern Massachusetts, near the sea shore. T. *Winthrop, Mass.*

We refer our correspondent to the articles on this plant, pp. 266, 330, 391, of our last vol.

Is currying milch cows, in winter, injurious or beneficial? C. Stuart.

Currying milch cows in winter, and all other ways of promoting cleanliness and comfort, are decidedly beneficial.

Impoverished Soils in Virginia.—Can you, or any of your correspondents furnish information with regard to the worn out lands in Virginia and Maryland? What are they worth? Are they easily brought too, or made productive? What is the original quality of the soil and what is it adapted for producing? Is the country healthy, with good water, and roads, schools and churches? Any information transmitted through the colums of the Country Gentleman will be gratefully received by hundreds of the many readers of that valuable paper, throughout the country, as well as by your correspondent. P. *Mooers, N. Y.*

Will some of our readers in the states referred to, answer the above. There is much desire for *the truth* in regard to these "worn out soils." We know one or two who have gone there from this state, and they have not found farming as profitable so far as they expected, though they like the climate better.

Clover Hullers.—I wish to inquire through your valuable paper the *Country Gentleman*, for the best Clover Huller to run with water power where we have from 50 to 200 bushels of seed to clean in a year. I have seen Crawford's Patent recommended to be as good as any and as being extensively used in Ohio. Is Crawford's patent better than Wheeler's or others that are advertised in the *Country Gentleman*? Do any or all of them hull and clear at the same time? Where and by whom are they manufactured or kept for sale? If you or some of your readers will give the desired information through the Country Gentleman you will greatly oblige A Subscriber at Orfordville N. H.

Crawford's Clover Huller is an excellent machine and extensively used in Ohio, but we cannot say that it is "*better*" than Wheeler, Melick & Co.'s, manufactured in this city. Crawford's is made by the Messrs. Russel, Massillon, Ohio. "Mansfield's Clover Huller," made at Ashland, Ohio, is also a popular machine. An excellent clover huller of larger capacity than any of the above, is made by A. Latourette, Jr., Waterloo, N. Y. All the above machines, except Wheeler's, hull and clean at the same time.

Guano for Rye.—I have a field I wish to sow with rye, which is inconvenient to haul compost to. Which fertilizer would be best, guano or plaster, and how should they be applied? Would not plaster be good as a top dressing in the spring. Your opinion on the above will much oblige J. H. B.

Good Peruvian guano is the best fertilizer for rye we are acquainted with. Sow 200 or 300 lbs. per acre on the furrows, and harrow it in at the time or a few days before the seed is sown. Will our readers give their experience with plaster as a top dressing in the spring on rye. We should not anticipate, as a genera thing, much benefit from it.

Ashes and Salt for Corn.—A correspondent writes that a friend of his applied a mixture of unleached ashes and salt to corn, *and it killed the corn.* He applied the same mixture (with this difference the ashes were *leached*) to potatoes with good effect.

C. H. G.—Westinghouse's two-horse power endless chain thrashing machines, and others advertised in our columns to which you refer, are excellent machines. We cannot say which is the "*best;*" they are all good.

Ice Houses.—Can you, or any of your correspondents, inform me through your paper, the Cultivator, the best mode of building an ice house, and how to keep, and pack it away. I have had several built on my farm in Greensborough, Md., but to no advantage. The ice would keep only a very short time, hardly worth the trouble and time in saving it. J. F. D. L.

R. *Richland, N. Y.*—The lime from a tan vat or from a paper mill would be nearly as valuable as ordinary slacked lime.

* * *

The Illustrated Annual Register of Rural Affairs and Cultivator Almanac for 1855, embellished with more than *One Hundred Engravings*—1 vol. 12 mo. 144 pp.—price 25 cents in paper covers—bound, 50 cents—sent prepaid by mail.

A capital book. The best thing upon rural matters that we have seen for a long time is "The Illustrated Annual Register of Rural Affairs, and Cultivator Almanac for 1855," by Luther Tucker, editor of the Country Gentleman (weekly) and Cultivator (monthly,) at Albany, N. Y. It contains in 128 pages, besides the calendar matters, 200 articles illustrated by 133 engravings, upon almost every point interesting to economical farmers or gardeners, and abounding with hints that will be found valuable by every man of taste and progress, however extensive or limited his means. Horticulture, the care of animals, field and garden cultivation, rural architecture both cheap and expensive, landscape gardening, protection from insects, household economy, new implements, and general agricultural and domestic information crowd its pages. The price is only 25 cents. We advise every one of our readers at all interested in any of these topics to forthwith send for it, as we know they will thank us for the suggestion.—*Lowell Courier.*

Notes for the Month.

The Crops.—The damage done by the Hessian fly to the wheat crop it is now generally admitted, has been overstated, and we trust the fears in reference to the midge will be found in a few days to have been premature. There can be no doubt that both the Hessian fly and the midge have done and will yet do considerable damage, yet, on the whole, the prospects of an abundant wheat harvest were never brighter. A letter just received from Rochester speaks of the wheat crop in Western New York as generally excellent, while barley, oats, &c. are "too good." The corn is late but there is yet abundance of time for a good crop. In Ohio, the midge has made its destructive appearance in some districts, yet a splendid harvest is expected. In the west generally the crops are most excellent. In Kentucky, the *Farmer and Mechanic* says "never within our recollection have we seen the crops look better in this country than at the present time. * * Harvest is now fully upon us * * and there is a fair prospect of lower prices. * * Nature seems determined to compensate us, as far as possible, for the bad yield of last year, by filling our granaries to overflowing." In Virginia, Delaware, &c. as we learn from public and private sources, the crops were never better. In England, they had a very dry spring, and latterly much rain and cold weather, and many fears are entertained of a bad harvest. The *Mark Lane Express*, however, thinks there is little ground for alarm, though the harvest will undeniably be a fortnight later than usual.

The American Agriculturist gives an account of a fraudulent article manufactured in this country and sold to farmers as Chilian Guano. It is prepared so as to look and smell like Guano, but is comparatively worthless. Farmers should beware.

Our very wide-awake contemporary, the *New-York Tribune*, presented its readers with the above item of information last Monday. It is rather behind the times, both as regards its information and its authority. It was the *Country Gentleman*, and not the American Agriculturist, that gave the account of the fraud perpetrated by the maufacture of a spurious "Chilian Guano."

Season and Crops in Indiana.—A letter from J. C. Teas, of 28th ult. from central Indiana, says, "It has rained almost every day since the 30th of last month (May) till the 25th of this—much corn has not been worked at all or is now being worked for the first time. It should be waist high at this season of the year, but is little over a foot—still we look for a good crop. Wheat promises a fair crop, is beginning to turn, and shall soon cut it. Fruit crop moderate, owing to the late frosts. In eastern Illinois, they have only a third of a crop of fruit. Nursery trees grow well. For about a month, not a furrow could be plowed, and not any hoeing done, on account of the excess of rain. We have not had our usual portion of rain for a year or two before."

Death of James Wilson.—Our citizens will regret to hear of the death of this estimable man. He has, for nearly a quarter of a century, lived among us, and his Flowers, respected for his many virtues. He leaves behind him a fragrant character, and his memory will ever be associated with the beautiful creations with which, in life, it was ever his delight to be surrounded.

We copy the above from the *Evening Journal* of Saturday last. Mr. Wilson died suddenly Friday evening, from congestion of the lungs, accompanied by a severe attack of pleurisy. He has long been a well known friend of Horticulture; he was a partner with Judge Buel in his celebrated nurseries many years ago, and has for the last fifteen or twenty, been one of our most prominent Florists, as well as a member of the nursery firm of Wilson, Thorburn and Teller. His sterling integrity and unfailing cheerfulness have endeared him to many earnest friends. He brought with him from his early Scottish home, the manly virtues for which that nation is distinguished, and his sudden death is a shock which many a heart will feel, beyond the circle of his own bereaved family.

Albany Co. Ag Society.—The next Fair of this Society is to be held on the Washington Parade ground in this city, on the 25th, 26th and 27th days of Sept. A meeting of the Board of Managers was held at Clarksville on the 14th, when the Judges were appointed, and other necessary arrangements made for the exhibition. It is to be hoped the farmers of this county will not forget the honor they acquired by the success of their last year's show, and that they will be prepared to make a finer display of their products this year than ever.

Durhams.—We learn that S. T. Taber, Esq., of Dover Plains, Duchess Co, has recently bought of Mr. Thorne a second bull calf from one of Mr. T.'s imported cows, by Messrs. Morris & Becar's "Duke of Gloster," so that he has now in his possession the only males in the country got by this celebrated bull, their dams having been served before the bull was brought to this country. We hear also that Mr. Wilkin of Orange Co., has sold, at a greatly advanced price, the famous bull "Balco," which he bought last spring of Messrs. Morris and Becar, to go to Indiana.

E. Marks, Esq., of Camillus, Onondaga Co., purchased a few days since, from the herd of Dr. Herman Wendell of this county, two very fine heifers and one cow. The heifers are Alice Maud 2d, by Meteor (11811,) out of imported Alice Maud by Grand Duke (10284.)—G. D. by the Duke of Northumberland (1940,) &c., &c., and Olivia by Dr. Wendell's imported Lord Ducie, out of Roan Lady by Monterey. The cow is Ringlet, by Mr. Vail's imported Duke of Wellington (3654,) out of Snowdrop by Ajax (2944)

Use of Bones.—Some twenty years since, at the suggestion of the late Judge Buel, a gentleman of this city put up a mill for grinding bones for manure. The farmers, however, failed to avail themselves of its advantages, and a large portion of the bones collected in this and neighboring towns, were shipped to England for the use of British farmers. Within the last few years, however, a change has occurred. The demand for bone-dust has been steadily increasing; and with all his efforts Mr. Coulson, the proprietor of the bone mill in this city, has been unable to supply the orders he has received, although he succeeded the past year in grinding over eighty thousand bushels. Most of this we learn, is shipped to Philadelphia, Baltimore, and other southern cities.

Willow Peeler.—Geo. J. Colby of Bolton, Vt., who has engaged in the culture of the Osier Willow, has recently invented and put in operation a machine for peeling the willow, which is said to perform the work with great rapidity.

A Nut for the Special Manure Theory Men to Crack.—Prof. Way truly says:—"The crops which are most benefitted by the application of gypsum, contain far less of either lime or sulphuric acid, than those upon which this manure produces no kind of effect." We may also add that the same may be said in regard to phosphate of lime, potash, &c. The crops which are most benefitted by their application contain the least of these in their ashes. When will those writers, who recommend manures corresponding to the ashes of the plant to be grown, examine this subject?

The American Farmer.—This old and earnest advocate of agricultural improvement commences a new volume with July number. It has always been one of our favorite exchanges, and we are glad to see it in new and larger type. Those who want a good sound, readable and reliable southern agricultural journal, will obtain it by sending $1 to S. Sands and Worthington, Baltimore, Md., and now is the time to subscribe.

Improved Cattle for Illinois.—We learn from the Chicago Democrat, that there is an "Illinois Breeding Association," located at Summit, Cook county, and that they have just received from Col. Morris, Mount Fordham, six imported thorough-bred Durham cows, all in calf by the imported bull Duke of Gloster. The association previously possessed four calves by Balco, two bulls and two heifers. "The bull calves from these six cows," says the Democrat, "they expect to cross upon the Balco heifers. And the bull calves from Balco they expect to cross upon the heifers from the Duke of Gloster. This, then, will be the starting point of the Summit herd of cattle. And, when people purchase, they will know exactly what they get. The pedigree being fixed, purchasers can suit themselves as to size, color and form, and the present imposition in trading off impure breeds of cattle for thorough-bred can be broken up, as no bull will be sold there whose pedigree on both sides will not be printed in the Herd Book."

Strawberries—Wilson's "Albany.—A dish of the above named fruit was sent us from the nursery of the late lamented raiser, Mr. James Wilson of this city. They certainly are a splendid fruit to look at—conical shape, dark evenly colored, with the seeds very prominently exhibited. Being an hermaphrodite in its sexual character, it is a free and heavy bearer, and will undoubtedly soon work itself into public favor. We hear it is a great favorite with market gardeners both here and in Philadelphia, where it has been partially disseminated.

Guano on Corn.—We have had rather a cold backward spring here. The hay crop will be very light this year. I have sowed my meadows with guano and plaster mixed half and half, which I see has helped them a good deal. Guano if used properly, I think well pays the farmer. Last spring I came on the place where I now am, and planted a 4½ acre lot with corn the first day of June; hoed it but once; put about a table spoonful of guano in the hill, and spread on some coarse manure I found in the barn-yard. The manure and lot were so poor my neighbors said I would get my labor for my pains; but when harvest came, it was said I had the best corn in Lebanon. The guano made nearly one-sixth difference, not by guess but by weight. Jas. Allan.

☞ John M. Stevenson, Esq., of Cambridge, Washington Co., has within a few days past, purchased from the herd of Dr Hermon Wendell of this county, two very fine Durham bulls. One is "Charleton," a yearling, got by Eclipse 2nd—(a gr. son of Meteor (1811)—) out of Daisy 7th, by Duke son of the Duke of Wellington (3654,)—the other is "Clarence," eight mo. old, by Dr. W.'s imported Lord Ducie, out of Daisy 6th, by Duke of Wellington (3654) &c., &c.

South Downs.—We have received from Mr. Samuel Thorne of Thorndale, Duchess Co., models of a pair of his beautiful South Downs—that of the Ram being the celebrated No 112, purchased by Mr Thorne at Jonas Webb's letting in 1853, for $650, and the Ewe being one sent out to Mr. T. as a perfect specimen of the breed. The admirers of fine animals are invited to call and examine these beautiful models. It will be seen, by an advertisement in this paper, that Mr. T. has some of the progeny of 112, as well as some imported ewes, for sale.

Improved Harrows.—I was interested with Mr. Hanford's description of his harrow in the Co. Gent. of June 14, and have no doubt it works well. But with my limited experience in the use of this most important farm implement, I have come to the conclusion that on land comfortably free from stone and tolerably level, there is no tool that will do the work equal to a stiff unjointed square harrow. There seems to be a sort of steadiness about them, that is just what is needed to level down slight protuberances in the soil, and more completely to pulverize the earth than any other pattern I have met with. I have one which I have been using this spring, of 28 teeth, of this description, which with 3 horses on and a good lively hand to drive, seems to do the work something as it should be. And really I cannot see how so many of our intelligent farmers can continue to use the *old fogy* A harrow, with great heavy dull teeth—say 13 or 15, and ¼ or ½ inches square, when a *good* tool will do the work so much more thoroughly. Wm. J. Pettee.
Lakeville, Conn.

☞ A story is going the rounds, that several of Col. Morris' fine imported cattle had been stolen, and slaughtered in New-York by the butchers. Such is not the fact however. The cattle stolen, belonged to another Mr. Morris, and were intended for the Shambles.

SETH A. BUSHNELL,

BREEDER of Durham Cattle, Maltese Jacks and Jennetts, and South Down Sheep,
August 1—w1tm1t Hartford, Trumbull Co., Ohio.

FAIRBANKS' SCALES.

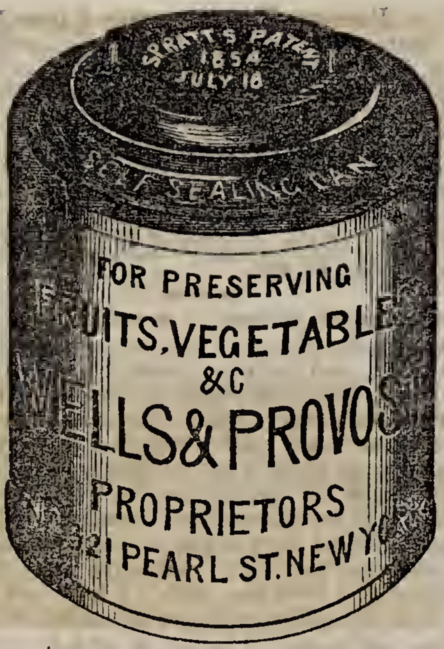
Warehouse No. 189 *Broadway, N. Y.*

THESE celebrated scales are still manufactured by the original inventors By an enlargement of their works, and an introduction of improved machinery. these scales are now furnished at greatly reduced prices. We have recently added to our stock a full assortment of *fine Gold and Druggists' Scales, Spring Balances, Patent Beams, Weights &c.* and now offer at wholesale and retail the most complete assortment of weighing apparatus to be found in the United States. We have a new and convenient article which we denominate the "FAMILY SCALE," it being particularly adapted to the wants of farmers and all housekeepers.

Hay and coal scales set in any part of the country by experienced workmen. Orders and letters of inquiry by mail will receive prompt attention. FAIRBANKS & Co.
July 12—w&m3ms. 189 Broadway, New York.

Stock Farm for Sale.

FROM injuries sustained, the subscriber is compelled to offer his Farm for sale, consisting of 285 acres of Prairie and Timber land—one hundred acres under cultivation; 50 acres Burr Oak Timber; balance red top, timothy and prairie grass lawn; situated in Fox River valley, Walworth County, Wisconsin. White River, a fine, never failing stream, flows through it, and several fine springs and a very fine well of water are upon the property. There is a good Frame House, with cellar, surrounded by a Grove of large timber; a Tenant House; a good Barn, with cellar and stabling for five horses and twelve cows; Smoke House, and all the requisites of one of the best and healthiest farms in the Union. Furniture, Stock, Farm and Utensils will be sold low, and offers a fine opening to any who wish to live west, in a healthy region, near Railroads, and where there is always a good market for grain and stock Fences mostly new. Terms made known by addressing H. IRVIN,
July 26—m3t* Burlington, Racine Co., Wis.



VERY IMPORTANT

To Housekeepers, Farmers and Fruit Growers.

ABOVE is a representation of a Canister, with a patent attachment, designed for preserving fruits and vegetables of all kinds in a perfectly fresh state, with their natural shape, color and flavor. It is termed the "Self-Sealing Can," and so called because soldering is dispensed with in closing up the aperture of the can, and because, by the simple turning of a cap, the outward atmosphere is wholly excluded

With these cans, and directions given with them, such fruits as Apples, Pears, Peaches, Strawberries, Raspberries, Blackberries, &c.; and such vegetables as Tomatoes, Green Peas, Green Corn, Beans, and, indeed, every species of either, may be preserved for years in their fresh state without the addition of salt, sugar or acid, or any other preservative property whatever.

Many of these fruits decay and go to waste upon the trees, bushes and market places. Now they may be saved and used, out of their season, for table or pastry purposes.

With this Canister they can be preserved economically, as sugar and spirits may be dispensed with.

Health is greatly promoted by the free use of fresh fruits and vegetables, while, on the contrary, digestion is greatly impeded, and the digestive organs impaired by the use of preserved fruits so completely saturated with sugar, as are the ordinary sweetmeats preserved by families.

These cans may be used year after year. The directions for preserving fruit and vegetables accompany the cans. The mode is so simple that an ordinary house servant, or child ten years of age, need make no error.

A little wrench should be purchased for screwing down the cover tightly, thereby making a perfect job. The Funnels also are a great convenience to those who would easily and nicely fill the cans. They are made for, and are perfectly adapted to the purpose.

N. B.—The "Genuine Self-Sealing Cans" have cast in letters on the top of the cap, "Spratt's Patent," "Wells and Provost, Proprietors, New-York." This much is mentioned to prevent imposition upon the public by any spurious or worthless article in imitation.

All the cans are guaranteed to answer fully and perfectly the purpose for which they are recommended.

PRICES.

Quart Cans, per dozen,	$2.50
Half Gallon Cans, per dozen,	3.75
Wrenches, each,	10 cts.
Funnels,	10 cts.

For sale by WELLS & PROVOST
Sole Proprietors.

Warehouse for the sale of the Cans, &c., 321 Pearl street, near Franklin Square, New-York.
A liberal discount to Agents. Aug 1—m4t.

THOMAS GOULD,

BREEDER of Durham and Devon Cattle, Leicester Sheep, Suffolk Swine, Madagascar or Lop-eared Rabbits, English Ferrets, Guinea Pigs, Choice and Fancy Poultry.
Jan. 18—w&mtf Aurora, Cayuga Co., N. Y.

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag. Price $53 per ton of 2000 lbs.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag. Price $13 per ton of 2000 lbs.

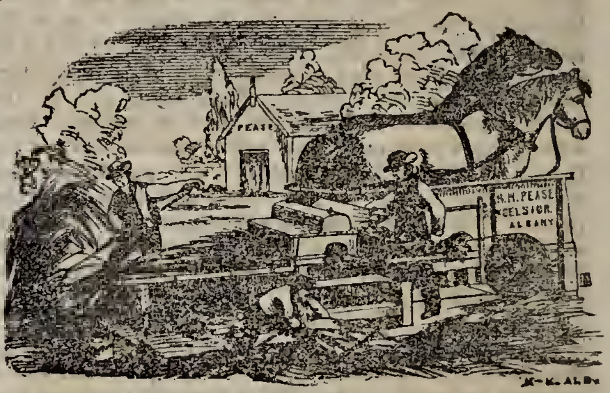
As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure 2 under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
July 26—w9tm3t New-York.

Virginia Land for Sale.

THE subscriber having yet a few Farms for sale from his large and valuable tract of land situated in the county of Fairfax, Virginia, on and near the Turnpike leading from Washington and Georgetown to Leesburgh, 16 miles from the city of Washington, two miles from the Canal, and within 3 miles of the Alexandria, Loudon and Hampshire Rail Road. The soil is of the first quality, of a deep red color, seldom affected by drouths to which most lands are subject. Adapted to grain, plaster, clover, and all kinds of grass. The land will be sold in lots of 100 or 200 acres, or as the purchaser may desire. Every Farm will be well supplied with wood, which consists of oak, chestnut and second growth of pines. Persons wishing to purchase would do well to call and examine before purchasing elsewhere. For further particulars, inquire of the subscriber on the premises.

S. S. MILLER,
Aug. 1—m5t Spring-Vale, Fairfax Co., Va



Excelsior Agricultural Works.

Warehouse and Seed Store,

No. 369 *and* 371 *Broadway, Albany, N. Y.*

THE subscriber is prepared to furnish to order a full assortment of Farm Implements and Machines, adapted to all sections of the country both north and south, among which may be found

The Excelsior Changeable R. R Horse Power.
" " Threshing Machines with Separators.
" " Cider Mill, Krauser's Patent.

Mowing and Reaping Machines, Grist Mills, Corn Shellers and Clover Hullers; Circular and Cross-cut saw mills adapted to the Horse Power, for cutting fire wood, fence stuff &c.

The list of Field and Garden Seeds is complete—embracing most of the Premium Grains on exhibition at the recent winter Show of the New York State Agricultural Soc. Among them is the Magnum-bonum Wheat, which is highly spoken of and apparently of great merit. Also a general assortment of Fertilizers. RICH'D. H. PEASE.
July 19—w&mtf.

NO. 1 PERUVIAN GUANO

CAN now be had at the

North River Agricultural Warehouse

For the benefit of farmers wishing to purchase this valuable manure, we would say that we do not keep the prepared, or No. 2 Guano. There will none but No. 1 Peruvian be found at our Warehouse.

GRIFFING & BRO.,
May 24—w8tm3t 60 Cortland-st., New-York.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

Hay Presses, Hay Presses.

DEDERICK'S PORTABLE PARALLEL LEVER HORIZONTAL AND VERTICAL HAY PRESSES.

THESE Presses are so constructed that they can be taken apart at the manufactory, and (by the printed directions accompanying each press) put together again in a couple of hours by any two farmers, without the aid of a mechanic. They are so conveniently portable that they can be moved from one field or farm to another, as a sleigh is moved, by a pair of horses or oxen, and for convenience and power of operation they are altogether unequalled. They are now being shipped to all parts of the country, and are in every instance giving the most decided satisfaction. With two men and a boy to attend the horse, one of these machines will bale from 6 to 8 tons of hay per day, according to the No. or size of the press. Prices, from $130 to $175. For circular, with full description, apply personally or by mail to the subscribers.

DEERING & DICKSON,
Premium Agricultural Works,
May 10—w&meowtf Albany, N. Y.

DE BURG'S NO. 1

Ammoniated Super-Phosphate of Lime.

THE above valuable compound is warranted pure and genuine. The manufacturing department is under the personal direction of the subscriber, and will have studious attention as to his preparation at all times being uniform in its component parts. Many experiments during the past year, with the above brand, in equal quantity with Peruvian Guano and other concentrated Fertilizers, scrupulously testing its value as compared with the latter, by various State Farms, public Agricultural Committees, &c., have been made, showing a preference for it as a manure, both as to early inducement and prolificness of growth. Pamphlets will be sent on application to the subscriber, containing full directions for use, &c.

C. B. DE BURG,
Sole Proprietor and Manufacturer,
June 14—w&mtf. Williamsburg, L. I.

TA-FEU,

A NEW FERTILIZER, manufactured from night-soil, which, after being screened, dried and disinfected, is raised to a certain standard by the addition of salts of ammonia. It is warranted to be composed of nothing but night-soil and the aforesaid salts of ammonia, as the chemicals used for disinfection add neither bulk nor weight to the composition. It is the intention of the LODI MANUFACTURING CO., who alone possess the right to this discovery, to make an article which can always be relied upon as pure and of a certain strength. It will be sold wholesale and retail, at $35 per ton of 2000 lbs., without charge for barrels or cartage, instead of which no tare will be allowed. A circular, containing testimonials of those who used an article something like, but much inferior in strength, made by us last season, will be forwarded by mail on application to the subscribers or their agents. Address

THE LODI MANUFACTURING COMPANY
No. 60 Courtland street,
May 31—w&m1m New York.

Maclura or Osage Orange Hedges.

H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants.

IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges, given to purchasers.

G. G. SHEPPARD, New-York—P. B. MINGLE, Philadelphia—BYRAM, PITKIN & Co., Louisville, Ky., wholesale Agents.
Apply as above. April 5—w2m2m

BLACK HAWK.

THE original VERMONT BLACK HAWK will serve a limited number of mares the coming season at $100 each. Gentlemen wishing to secure the services of this horse, must send in their letters at once.

Good pasturing at 50 cents per week. All accidents and escapes at the risk of the owner.

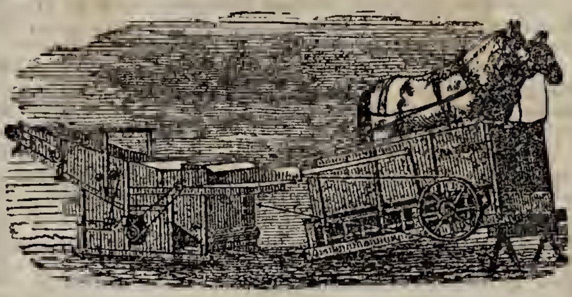
DAVID HILL,
March 1, 1855—m5t Bridport, Addison Co., Vt.

Farm Lands for Sale,

IN LOTS TO SUIT PURCHASERS.

OVER 2,000,000 OF ACRES of Selected Prairie Farm Lands, belonging to the Illinois Central Railroad Company. The price will vary from $5 to 25, according to quality, location, &c. The purchase money may be payable in five equal installments, the first to come due in two years from date of contract, the others annually thereafter—giving six years to pay for the land, with a charge of only *Two per cent per annum interest.* The first two years' interest payable in advance. The Company's construction bonds received as cash. Apply to

CHAS M. DUPUY, Jr.,
Land Agent Ill. Cen. R. R. Co.
March 15—m6t* No. 84 Lake St., Chicago, Ill.



G. WESTINGHOUSE & CO.

CONTINUE the manufacture of Threshing Machines Clover Cleaners, Wood Saws, &c., at Central Bridge Schoharie Co., N. Y.

We have improved our Thresher and Cleaner, (and for which we have obtained a Patent last year,) which works superior to anything of the kind in use, and has given entire satisfaction where used.

Our Horse-Power, Thresher and Separator, has the name of being the best machine in use, where known. Those wanting machines will be more likely to get them when wanted by ordering them early, as we shall not be able to make more than 100 of them this season. Last year we did not supply the demand by a large number, being unable to get them out in time.

Further information given on application by mail otherwise.

G. WESTINGHOUSE & CO.
Central Bridge, N. Y.
May 3—w22,24,26,28,30,32—m3t

ENGLISH CATTLE,

Imported on commission by Messrs. THOS BETTS BROS., Bishop's Stratford, Herts, England—81 Maiden Lane, New-York City.

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
Short-Horned Cattle,
Devons, Herefords, Ayrshires,
Alderney Cows from Islands of Alderney and Guernsey,
Pure bred Southdown Sheep,

Hampshire Sheep,
Cotswold, Leicester do
Suffolk Pigs,
Essex, Berkshire do
Merino Sheep from Spain,
Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane.
Jan. 4—1am—m1y. New York City.

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For sale at the office of the Country Gentleman.

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DOMESTIC ANIMALS

AT PRIVATE SALE.

L. G. MORRIS' ILLUSTRATED CATALOGUE, with prices attached, of Short Horned and Devon Bulls and Bull Calves, a few Horses, South Down Rams, Berkshire, Suffolk and Essex Swine, will be forwarded by mail (if desired.) by addressing L. G. MORRIS, Fordham, Westchester Co., N Y., or N. J. BECAR, 187 Broadway, New York. It also contains portrait, pedigree, and performances on the turf of the celebrated horse "Monarch," standing this season at the Herdsdale Farm. May 3, 1855—w&mtf

THORO'-BRED SHORT HORNS.

THE herd of the subscriber being now larger than it is desirable to retain, on account of the size of his farm, he wishes to dispose of five females, varying in age from three months, to nine years, all highly tinctured with Bates blood, and in other respects with the most desirable crosses for milk giving, as well as butter and beef making. Also five very fine young Bulls, two of which were got by the celebrated prize Bates Bull Meteor, (11811,) two by his own valuable imported bull Lord Ducie, and one by Eclipse 2d, gr. son of Meteor. They vary in age from six months to one year, and are out of some of the best cows of his herd, who are equal to any in this country. Dr. HERMAN WENDELL.

Albany, June 14—w&mtf

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by

Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

RURAL PUBLICATIONS.

THE attention of all persons interested in rural pursuits is invited to the following publications:

THE COUNTRY GENTLEMAN—a Weekly Journal for *the Farm, the Garden and the Fireside*—forming yearly two large and beautiful quarto volumes of 416 pages each. Price, $2 00 a year. This is, beyond question, the best agricultural journal published in this country. Specimens sent to all applicants.

THE CULTIVATOR—a Monthly Journal for the Farmer and the Horticulturist, beautifully illustrated, and forming an annual volume of nearly 400 pages, at 50 cents a year.

THE ILLUSTRATED ANNUAL REGISTFR of RURAL AFFAIRS for 1855, embellished with more than *One Hundred Engravings*,—1 vol. 12 mo. 144 pp.—price, 25 cents in paper covers—bound, 50 cents—*sent prepaid by mail.*

RELATIONS OF CHEMISTRY TO AGRICULTURE, and the Agricultural Experiments of Mr. J. B. Lawes, a new work by Prof Liebig, just published, price 25 cents—sent prepaid by mail.

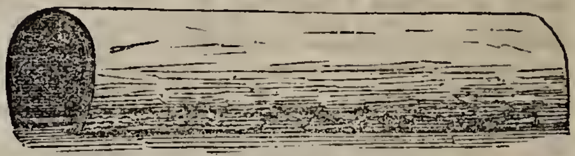
☞ Specimens and Prospectuses sent to those disposed to act as Agents. Address the publisher,

LUTHER TUCKER. *Albany, N. Y.*

Appleton & Alderson's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

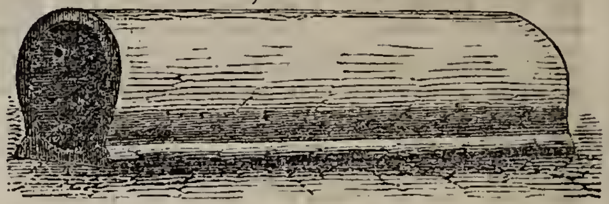
HORSE SHOE TILE, 14 INCHES LONG.



PIECES.

4½ inches calibre, ...	$18 per 1000.
3½ inches calibre, ...	15 per 1000.
2½ inches calibre, ...	12 per 1000.

SOLE TILE, 14 INCHES LONG.



PIECES.

4 inches calibre, at	$40 per 1000.
3 inches calibre, at	18 per 1000.
2 inches calibre, at	12 per 1000.

THE subscribers having enlarged their works, are now prepared to furnish Drain Tile of the various patterns and prices. Also Large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. We warrant our Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchant's, 71 Quay-st., Albany, near the Steamboat landing.

Full directions for laying Tile will be sent free to those addressing the subscribers.

We only need say that Appleton & Alderson obtained the first prizes for Tile at the Albany County, and N. Y. State Fairs. Practical drainers furnished if required.

Orders from all parts, will be thankfully received and promptly attended to.

Address APPLETON & ALDERSON,
195 Washington-st., Albany, N. Y.

May 31—weow&m5m

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No. 12 Broadway, New-York.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers, Reapers, Horse Powers and Threshers, Combined Thresher and Winnowers, and other Agricultural Machines.

May 24—m12t*

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD — To Improve the Soil and the Mind. — SERIES.

Vol. III. — ALBANY, SEPT., 1855. — No. IX.

The Improvement of Grass Lands.

In the improvement of grass land, the first thing to be done, is the removal of all stagnant water by means of thorough underdraining. Unless this is accomplished, the best of cultivation, seeding and top-dressing, will fail to produce their full effect.

When our meadows fail, from whatever cause, it is generally advisable to plow them up in the fall, and cultivate them thoroughly for two or three years, with corn, potatoes, or other root crops, manuring them heavily, and seeding down again when the white daisy and other weeds have been destroyed, and the old turf has entirely disappeared. If, however, the land is so low that it is not desirable to cultivate it with other crops, it may be plowed up in August, and well worked with the cultivator, harrow, &c., till a fine "seed bed" is obtained, not forgetting to give it a good coat of manure ;—if long manure, plow it in ; if well decomposed compost, which is best, spread it on the furrows, harrow and cultivate till it is thoroughly incorporated with the soil. About the first of September, sow it with artificial grasses, and be not sparing of the seed ; half a bushel of Timothy and half a bushel of red-top, or other grasses in proportion, is none too much. Generally, by so doing, a fair crop of good hay is obtained the next season. This method of re-stocking worn out meadows has been practiced with much success by many excellent farmers in New-England. Some of them recommend sowing clover with the Timothy and red top, in the fall, but we should be inclined to fear it would seldom survive our hard winters ; unless, indeed it were sown quite early, say in July or first of August.

We have seen meadows greatly improved by simply scarifying the sward in the fall by means of a heavy harrow, and then sowing from eight to sixteen quarts of Timothy, red-top and rye-grass seeds, equal parts, to the acre. In the case alluded to, heavy rain followed immediately after the sowing, and the seeds were not harrowed in at all, but generally it would be well to cover them slightly with a light harrow. We need hardly add that a good coat of compost, spread on the sward before the first harrowing, would be of much benefit.

The best time to top-dress all meadows that are not of too light or porous a nature, is in the fall. In England nothing was more common, twenty years ago, than to make a compost with barn-yard manure and old headlands, and after it was well decomposed, to cart it on to the meadows during the winter months. The effect was very beneficial. Unmixed manure was seldom used. Since the introduction of Peruvian guano, however, the practice of composting old headlands has, to some extent, given way to top-dressing with light artificial manures. Guano gives a better immediate effect at a much less cost; but whether it is ultimately more profitable is an open question. With hay at from $15 to $20 per ton, there can be no doubt that a judicious application of good Peruvian guano, in the fall, or *very early* in the spring, will give sufficient increase, for a few years at least, to pay for the guano and have a reasonable profit. The constant exportation of hay draws heavily on the soil for potash, and as *guano contains very little potash*, (not more than 2 per cent) it may reasonably be supposed that to manure with guano alone will soon leave the soil deficient of available potash.[*] If such should be the case, however, an application of wood ashes occasionally would supply the deficiency.

Aside from underdraining, there is no improvement better worthy the attention of American agriculturists than that of irrigating grass land. Who that has ever seen the beautiful water meadows of Gloucester, Hampshire, Devon, and other English Counties, can doubt that we have in irrigation a grand means of increasing the production of our grass land, and through them, by keeping an additional quantity of stock, of raising the general fertility of the farm ? If Signor J. Devincenzi, secretary of the Italian committee on Irrigation, could say that "irrigation as an art is neglected in England," what would he say of this country ? A perusal of his "Report on Milanese Agriculture," showing the astonishing effect of irrigation in Lower Lombardy, would satisfy the most sceptical that we have in the water now running uselessly down our hill-sides a great and perpetual source of wealth. We have enterprising farmers who raise water a considerable height by means of hydraulic rams, windmills, &c., for irrigating purposes; and if it will pay them to do so, how much more profitable would it be for those so located, that an abundance of water can be obtained by damming up a stream and diverting it from its natural course by means of artificial ditches, sluices, &c.?

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[*] One of our Boston contemporaries, a week or two since, gravely told its readers that "*Grass abstracts from the soil no potash.* It contains, carbon, 45 per cent.; hydrogen, 5 ; oxygen, 39 ; nitrogen, 1½, and ashes, 9 per cent." The writer could hardly have shot farther from the mark had he tried. Except potatoes, turnips, and the leguminous plants, there are few crops that abstract so much potash from the soil as "grass." One-fifth of the "ashes" referred to is potash, which was doubtless abstracted from the soil. We would recommend our friend to read carefully some such work as "Johnston's Elements of Agricultural Chemistry and Geology," edited by Simon Brown and published by C. M. Saxton & Co.

The Hon. A. B. Dickinson, at the last Annual Meeting of the New-York State Ag. Society, stated that he had found hard water, containing much lime, far less valuable for irrigating than soft water. This is quite probable, since the soft or rain water contains much more ammonia than the hard water; nevertheless the water running over the calcareous soils of Hampshire in England, and which is consequently very *hard*, is used with great success. It is generally supposed that water productive of fish, particularly trout, is well suited for irrigating, for the reason that the substances which supply the young fry with food, are also beneficial to plants, while mineral matters which are noxious to fish, are also injurious to vegetation. For grass land, experience seems to indicate that clear water is preferable to that which is turbid from containing organic or inorganic substances.

But although, as a recent writer says, the "clearer the water the better," an admixture of animal excrements adds greatly to its fertilizing properties, and there can be no doubt that there are many farms so situated that a stream of water could be turned through the barn-yard, and used to convey a considerable portion of the manure to the land at a slight expense. In the dairy districts of Devonshire and Cheshire, and some parts of Switzerland, this practice is adopted to some extent with advantage.

We cannot close our eyes to the fact that many have tried irrigation to some extent with but partial success; and there is a very general impression that irrigation is not adapted to our climate and circumstances. In cases of failure, the trials, so far as they have come under our observation, are very imperfect, and generally manifest entire ignorance of the laws of vegetable growth, on the part of the experimenters. The fundamental error usually lies in imperfect drainage. The water is suffered to become stagnant on the land, and, of course, under such circumstances would be likely to do as much harm as good. In nine cases out of ten, it is impossible to improve our grass lands to any great extent without thorough underdraining. This secured, there is hardly any limit to the crops of grass which may be obtained by good seeding, top-dressing and irrigation. In Lombardy, "they cut eight or nine crops yearly from a meadow." This seems hardly possible, though the statement rests on good authority. In the colder climate of England, irrigation has done wonders. In the poetical language of Philip Pusey: "A slight film of water trickling over the surface—for it must not stagnate—rouses the sleeping grass, tinges it with living green amidst snows and frosts, and brings forth a luxuriant crop in early spring, just when it is most wanted, while other meadows are still bare and brown. It is a cheerful sight to see the wild birds haunting these green spots among the hoar-frosts of Christmas; or the lambs, with their mothers, folded on them in March. A water-meadow is the triumph of agricultural art, changing, as it does, the very seasons."

Steam for Threshing, Sawing, &c.

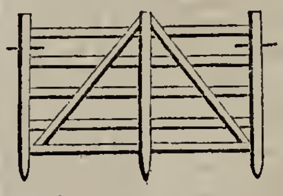
Messrs. Editors—I see in your Cultivator of July, an inquiry as to whether steam has ever been employed for threshing in this country. Last year I put up a stationary steam engine for that purpose, and cutting hay, straw, &c. The engine is seventy feet from the barn; has an under-ground shaft, and drives the thresher with a five-inch belt that comes up through the barn floor. It is an eight-horse power, with an eight-inch cylinder, and one foot six inches stroke. Boiler 18 feet long, with a return flue, made by Wm. Kidd, Rochester, N. Y., and costs about $100 per horse. It will take from ten to twelve sticks of hard wood to get up steam of 85 lbs. the square inch.

I use one of Hall's eight horse threshers, and find that steam drives it better than any horse power ever can, as there is no jerking, and you can feed light, heavy, or even stop feeding, at will, without having the machine run up to such a high rate of speed as with horses.

I cut all my hay, and use one of Daniels & Raymond's straw and stalk cutters, which is certainly the best in my opinion I have ever come across, for they are put together in a strong and efficient manner, to stand a good speed.

The engine also drives one of Emery's cross-cut saws (but altered to run with a belt,) for the purpose of cutting logs into firing, which saves nearly all the chopping, and a circular cross-cut saw for cord wood. These two are out-side the building.

Inside is another circular saw for slitting up black ash plank to make a movable hurdle fence eight ft. long—posts 4 ft. 7 in. high by 2½ in. square—rails 2½ by ¾ inches, mortised thro' the posts and secured in them by 2½ pressed nails. The cross pieces are secured by ¾ nails, but are clenched on one side. The hurdles (or frames as they are called in Scotland,) are put up by driving the stakes in the ground and fastening them at top by a pin. I am using over 350 of these, and find that if cattle are not *very* breachy, they answer well. I have sold 250 at 75 cents each. Two men with a team will take up 80 rods of this fence and put it up again in half a day.



An engine is also useful in turning a grindstone and feed mill. E. Poore. *Tangly Farm, Coburg, C. W., July* 23, 1855.

Scours in Cattle.—A correspondent writes that he had a cow which scoured badly, and thinking "she might as well die one way as another," he gave her "a handful of saltpetre," and she got better forthwith, and is now as well as ever.

On Hay-Making.

Although my harvest experience is late for this season, I send an account of 38 tons of hay, got in in very catchy weather, which may be of advantage for some one next year, who has 38 tons of hay to get in.

Mowing Machines.—Every body now has a mower, or ought to have one. Mine is one of Ketchum's, a machine which does its work well, but is liable to get out of order. The motion on the crank shaft, shakes off the nuts, and every part of the machinery is difficult to get at, the machine requiring to be taken to pieces to repair it. In mine, the crank shaft had a flaw in it, and fearing it would break, as it afterwards did, I procured another at Mayher's in New York, which cost me $4 for a piece of iron not worth $1. Guards, knives, and every thing, cost in proportion. If makers of these machines charge us farmers 200 per ct. profit on the machines, the replacing defective parts should be made at less cost. The machine I have, in heavy grass takes 3 horses. Allen of New York, has made a decided improvement. His machine requires less speed; all the gearing is in sight, to be oiled and examined; it cuts 5 inches wider, and 2 horses worked it easier than 3 did Ketchum's, doing as good work. They all work fast enough. With Ketchum's, I cut an acre in 52 minutes, adding 15 required for repairs, a key in my new crank shaft falling out, the machinist having put it in from the lower side of the wheel.

Importance of Hay Caps.—One of my new arrangements for hay, which, in a showery time, has proved very profitable, is my hay caps. Four yards of muslin, sewed through the middle with a *double* seam, and hemmed outside across the ends, makes a piece 2 yards square. Put these on the cocks, which should be about 100 lbs.; draw out a wisp of hay at each corner, twist it in a rope, and give one turn round the corner of the cloth to prevent its blowing away. On Saturday I had 4 tons out in a rain, in which 2½ inches of water fell; on Sunday it was not touched, and on Monday after breakfast the cocks were only turned over to dry the dampness on the bottom, and the hay drawn in. The muslin by the piece costs 6½ cents; they can be made for six cents, so the cost of 100 is $32. Farmers do not calculate the damage done their hay by a soaking wet. Should they ask their wives how it would answer to dry the tea leaves after using them, and try them for tomorrow's breakfast, they might get some information similar to what a horse or a cow would give if they could speak as to the value of wetted hay. Since I commenced haying, we have had frequent showers, and two heavy rains, and my rain gauge shows four inches and eight-tenths of rain fallen since the 6th. If the hay is put up green, it can sweat a little in the cock. Open it for an hour, put it up again, cover it, and if you do not want your covers let it stand. It comes in, *dried green*, and in perfect order.

In 13 working days, with an average of about 4½ hands, I have taken in 38 tons. My last 4 tons have been out 5 days, on every day of which, except Sunday, we have had rain. It was heavy timothy, and 2 cocks, of which the covers blew off, were entirely spoiled—the residue in good order. W. H. Denning. *Fishkill Landing, July* 25, 1855.

Green Clover Hay,

STORED ON THE SECOND DAY AFTER CUTTING.

In the years 1834—6, I occupied a four and a half acre lot, in the town of Otsego, Otsego Co., N. Y., which was seeded with Red Clover, and was devoted to the purpose of hay. I was dependant for farm labor on the neighboring farmers, who employed, at that time, little foreign help, the consequence was that I was obliged to cut my hay before the ordinary season of haying, or I could not get assistance. My hay was stored in a 30 by 40 ft. barn, in one corner at the end of the stable, and on the side of a threshing floor, in what is familiarly called a *bay*. It extended some three ft. below the level of the floor, and was probably 16 by 12. ft.

I usually cut my hay one day and mowed it the next, much to the surprise of my neighbors who thought it impossible that it could thus be kept fit for future use. Yet no hay ever kept more satisfactorily, or sold at a better price to my neighbors. The mode of procedure was simply this. The clover, just in the freshest bloom, was cut in the forenoon, cured, to a certain extent, through the day by spreading and turning, and was always, in ordinary good weather, got into winrow or cock before evening. On the succeeding day, the cocks were turned over, and occasionally merely split into two. Before evening all was stored in the barn.

And now for the mode of mowing. A hole was made in the foundation wall of the barn on two sides of the barn; rails and boards were then laid at the bottom supported on stones. Thus there was a good ventilation under the mow. On the center of the floor of the mow, over a hole, I set a long bag filled with hay; around this the hay was mowed, each considerable layer being sprinkled with salt. Thus I continued to do, drawing the bag upward until the mow was finished at the height of some 16 ft.; over the top of the mow was laid any dry rubbish, such as straw or poor hay, such as I could most readily command. Into this covering, which needed to be pretty thick, rose all the steam of the imperfectly dried hay beneath, converting this covering into a wet mass fit only for manure. This hay, cut so green, and cured with so little exposure to sun and wind, was very bright, and crumbled very little. Hence my horse and cow ate it without an unsightly remainder of dry and naked stalks.

Might not this plan be tried with equal success with hay composed of Timothy or red top, or both?

The present state of the weather is worse than any thing of the sort I remember ever to have seen,—worse certainly than any thing of the sort since 1829. The July of 1851, was however, a near approach to it, as it exhibited nine rainy days, besides rain on three other occasions in the night. From the middle of July to 21st of August 1850, was also very similar weather, but yet with some intervals of good hay weather. In such a state of the weather some wholesale but safe mode of storing hay seems desirable. C. E. Goodrich. *Utica, July 26th*, 1855.

Works on American Agriculture.

Messrs. Editors—I have been a book-keeper for twelve years, and am now trying to save sufficient from my salary to purchase a farm, when I shall lay aside the *pen* for the *plow*. Although I worked on a farm when a boy, I am now, of course, considerably behind the age in nearly all things which pertain to agriculture; therefore I am desirous of commencing a course of reading which will fit me for the avocation of a farmer. Not knowing how to commence, and after giving the matter some thought, I concluded to address you, and ask for a list of such works as will prove beneficial to me, and from which I can derive such instruction as will be useful when I am placed on a farm. Will you be so kind as to send me a list of such works, in the order in which they should be perused, for which I shall be very grateful. J. C. C.

How can one who has no knowledge of the theory or practice of agriculture, learn to be a good farmer? Such is the question our correspondent propounds to us. We must confess it is one we cannot satisfactorily answer. We should recommend a young man, with a good education, and some knowledge of the physical sciences, and who had an ardent love for rural pursuits, to apprentice himself for a few years to some intelligent practical farmer; but in the present case this is out of the question, and the mysteries of agriculture must be acquired by "dear bought experience," and by a careful study of the writings of practical and theoretical farmers. Agriculture cannot be learned from books alone, any more than we can learn to shoe a horse or analyze a soil by reading treatises on blacksmithing or chemistry. It is true the right kind of books would be valuable aids, but unfortunately we have few that do not contain many recommendations that would lead an inexperienced American farmer astray. We might recommend you to read Stephens' Book of the Farm, Thaer's Principles of Agriculture, Boussingault's Rural Economy, Loudon's, Johnson's and Morton's Encyclopedias, Lowe's Practical Agriculture, and a number of similar works, all excellent of their kind, yet the methods of cultivation, seeding, harvesting, &c., detailed, cannot be adopted in this country. In fact, it requires considerable practical and theoretical knowledge of American Agriculture before we can derive any material advantage from their perusal. We need sufficient knowledge to grasp the *principles* underlying those systems of European agriculture, which long experience has established, before we can safely attempt to adopt in our climate and circumstances, even a modification of European practices. An *American* Book of the Farm, and a Cyclopedia of *Amecan* Agriculture have yet to be written. Our principal books on agriculture are little else than reprints of English works. It is difficult to find one that is not more or less made up from the writings of European authors, which, however excellent in themselves, are not adapted to this country.

Even our *original* American works on agriculture, therefore, cannot be implicitly relied upon by the student unacquainted with practical agriculture. He must have a certain amount of knowledge in order to sift out the chaff from the wheat. The same may be said of the reprints of European works with which our agricultural literature is flooded. It is true they are sometimes "edited" by gentlemen capable of rendering them valuable aids to American farmers, but, as a general thing, the labor has been hurriedly and imperfectly performed. In some cases it has been confined to writing a preface, congratulating the sovereign people on the superiority of their glorious institutions, or to making out an index. Our agricultural periodicals are much better, though there is much in them that will not stand the test of practical application.

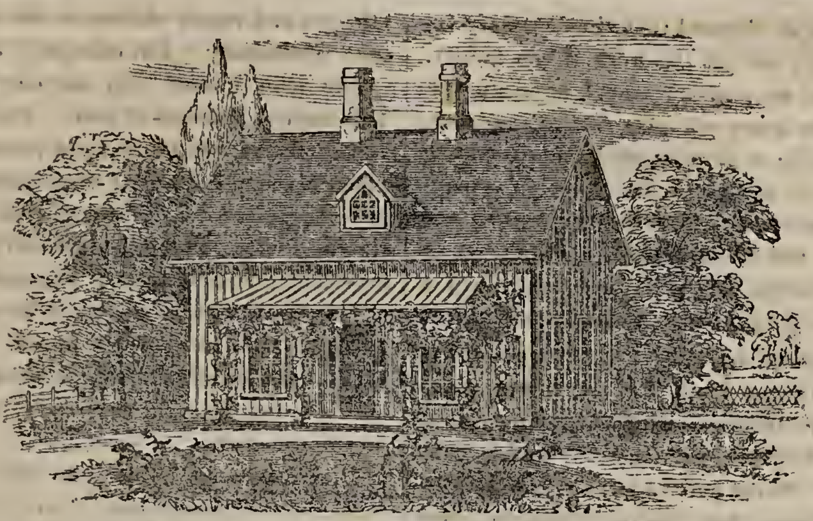
Our correspondent will think we are portraying rather a dark picture, and affording him little encouragement for the prosecution of agricultural knowledge; but we would not dissuade him from his purpose; far from it; agriculture is a noble calling and the difficulties to be encountered in its pursuit should only serve to quicken our zeal and stimulate to persevering efforts. Many of the best farmers in every age and country have been educated in other professions. They brought cultivated and enthusiastic minds, untrammeled by prejudice, to the work, and though perhaps, for some time their numerous mistakes were the laughing stock of their practical neighbors, yet they acquired in time, skill in farming manipulations conjoined with an enlightened experience, that won the respect and admiration of all.

We would say then, to our friend, take these noble men for an example, read carefully a few of the best treatises on agriculture at command, but do not be too credulous, *think for yourself*, try to comprehend the *principles* of well established practices, and upon them construct a system better adapted to your particular circumstances.

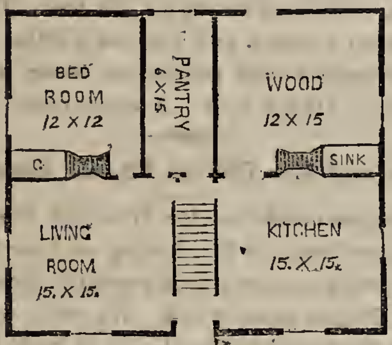
The following works may be read with advantage in the order named; Nash's Progressive Farmer, Norton's Elements of Scientific Agriculture, Dana's Muck Manual, Stockhardt's Chemical Field Lectures, Johnston's Agricultural Chemistry and Geology, Thaer's Principles of Agriculture and Boussingault's Rural Economy. As books of reference we may name Allen's American Farm Book, and Morton's Cyclopedia of Agriculture. The former as being to some extent American, the latter as containing the more recent practices of British Agriculture. The list might be advantageously extended. One or two good, reliable agricultural papers will of course pay you weekly or monthly visits; and if you had a set of the back volumes of the *Cultivator* or of the *New England Farmer*, or even of the *Genesee Farmer*, you would find them exceedingly useful. Indeed, we consider them indispensable to a good agricultural library.

Farm House.

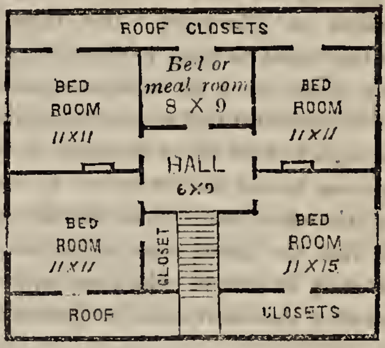
The following plan of a farm house, furnished by a correspondent, contains many conveniences compactly arranged together. The absence of a *parlor* will strike some eyes as an obvious deficiency; but for a farmer of moderate means, the less that is kept for show and the more for comfort and convenience, the better. A



FARM HOUSE.



Ground Plan—30 by 33 feet.



Second Floor.

neighbor of ours, who is a farmer of good means and superior intelligence, has reserved one room as a parlor—but it has been kept shut up as dead property, and to our certain knowledge, has been used but twice in fifteen years,—once for a quilting party, and once for a wedding. The owner, to have more room, added in the first place a kitchen to his main building, so as to have a dining or living room, and "save" his parlor; next, the kitchen was converted into a dining room, and the wood house was lathed and plastered for a kitchen; and several successive additions have been since made—the parlor remaining in solitary loneliness. Now, if this room, *kept for show, but never made visible*, with its furniture, cost $500, then its use once in seven years, must cost, with interest, decay, &c., about *four hundred dollars* for each occasion. At the same time there are some serious domestic inconveniences that might be remedied for a fourth part that sum, and some glaring exceptions to neatness outside, which a tenth part would remove. We have made a little alteration in the plan, by substituting one large window, for the two small ones on the front side of the kitchen and dining room; and we have *added a perspective view* of the house, showing the addition of a dormer window for lighting the stairs and above; another to be placed opposite on the other side, to light the meal room. Without these additions, the plan would obviously be quite defective.

Such a house as this, made as we have represented in the perspective view, without any ornamental appendages, would probably vary in cost with the cost of materials in different localities, from nine to twelve hundred dollars.

Eds. Co. Gentleman—If there is one thing of more consequence in the construction and arrangement of the farmer's house than another, that thing is convenience—for just so long as labor, sweat, and toil, are the inheritance of our race, just so long will physical comfort, and the means for its creation and preservation, rank high among the aids to human welfare and happiness. If this be so, the conclusion is plain and easy to be understood, that, as the duties and labors of the farmer's wife are mostly in the house, it becomes a matter of the highest interest that its internal arrangement should be such as to enable her to provide for the wants of her household with the least possible amount of labor.

All are ready to admit that there is a vast difference between a convenient and an inconvenient house, and from my own observation I am satisfied that hundreds of American women have been hurried prematurely to the grave in consequence of badly constructed and poorly furnished houses.

But, what is necessary to convenience in a house? According to my ideas, there should be at least four rooms upon one floor—a kitchen, a dining or living room, a pantry, and the family bed-room—and perhaps I should have added, a wood-house, especially for the colder parts of the country. These are all rooms that come in use every day, and many times a day, and it is upon their proper disposition and arrangement, that the comfort of the housewife depends.

These should all be so disposed that the necessary labor of getting meals, and all the work of the family, can be done without unnecessary travel, or encumbering one part of the house with the dirt of the other. The kitchen should be in close proximity to the dining room, the pantry, the stairs and the wood. The pantry should be accessible both from the dining-room and kitchen, and near the cellar stairs; it should be of good size, not very large nor very small, and have a northern exposure—6 by 12 is a good size and shape.

You will not be surprised, Messrs. Editors, who know what good living is, when I say that the pantry is second to no room in the house in importance, and yet, of all others, is most despised and neglected by our fashionable designers. Never put the kitchen between the pantry and dining-room, but always, if possible, place the pantry between the other two. Downing's designs are abominable on this score. Just think of having a room that must be used, perhaps forty times a day for forty years, stuck off in some remote corner, where you will have to travel across a large room, and, perhaps, through two or three passages to get at it. The dining-room should be convenient to the pantry, kitchen and chamber stairs—the family bed-room should open into the dining-room or kitchen, in order that the fires may be seen to—the sleeping apartments for the balance of the family can be furnished in the chamber.

Halls and parlors are luxurions nuisances, only to be indulged in by those living near or in towns, or by those of ample means and in the frequent reception of much company. They generally create a great deal of waste room, and spoil as much more. Every thing about the farmer's house should be plain and substantial, and expressive of his every-day life.

And another thing,—when he builds a house he should build what he needs at once, and steadily resist all temptation to stick on little seven by nine additions—avoid all gingerbread or other flimsy decorations, and build a little too small rather than too large—furnish the house with every possible contrivance for the easy performance of the every day labors; and my word for it, no man need be troubled with a scolding wife, or she with a worn out, broken down, jaded constitution.

Enclosed I send you a plan of a "Farm House," which will illustrate my ideas, and if built would cost, almost anywhere, as much money as nine-tenths of our farmers have to spare, and will furnish them all the room they need. Of course those of ample means, and peculiar social wants, should build houses in accordance therewith; but I believe our people spend too much money on houses, as a general thing. We miss very much of happiness by creating and undertaking to supply too many fictitious wants. The farmer's life is necessarily simple, and he should never be caught hankering after that which is inapproppropriate to his station.

One thing more—buildings cost much money, and are always a constant drain upon the purse for maintainance and repair—hence no one should spend more than is necessary. But enough of this now.

The plan I send you has one merit—*regularity*. This ensures economy of cost. All the doors, windows, and chimneys, are in the right place, so that internal convenience and external appearance will harmonize. It is designed for a one story house, with a steep roof. Its great width allows of this, and gives ample room for sleeping chambers, and a garret seven feet high above the chamber, which can be used for rubbish, or for cheap beds for harvest hands. The hall at the head of the stairs is lighted by the large window at the foot, and the meal room may be lighted by a window in the door.

This house can be made to suit almost any exposure, and the outside doors should be placed accordingly. An arbor veranda should run round the entire buildings. The area covered is 990 feet. How many farmers need a larger, and who has a better arranged, more economical, and convenient house, within the same area? Hawk Eye. *Keokuk, Iowa.*

Mapes and the Guano Fraud once more.

The August number of the *Working Farmer*, contains Mapes' reply to the charges we have been compelled to bring against him in regard to his connection with the Chilian guano fraud. We wish our readers could see the whole article; but it is such a mass of verbiage that it would occupy too much of our space to copy it entire. We will therefore give its principal points, appealing to our contemporaries, and to all who see both papers, whether we do not give substantially the meaning of the article. We make these remarks lest our readers should suppose we had distorted Mapes' article, and that he cannot possibly have made such a *confession of guilt*. Here it is:

> "Some time since, during the dull season of the year, the owners of the Mexican guano applied to us to grind it; * * and we did grind, at an expense of a little less than $5 per ton, 200 tons of their material. * * We did this as any miller might grind a quantity of material sent to him for that purpose, having nothing to do with it as a business matter, further than the receipt of the mere cost, without profit of grinding it, while our mills were not wanted for other purposes. We consulted with the proprietors of this article; and after giving our views, we took their instructions as to its necessary constituents. After the manufacture was commenced, they wrote to the Factory, giving orders as to the brand to be place upon it. * * We had nothing to do with the name of this article, and think that selected a bad one, calculated to cause those who purchase to suppose it a different article."

We shall make no comments on the above, but would call attention to the fact that, while Mr. Mapes has hitherto tacitly denied having any business connection with the "Improved Superphosphate of lime," although made on his farm, he here admits unwittingly that the mills and apparatus of the Superphosphate Factory, are his. "The owners of the Mexican guano applied to *us* (Mapes) to grind it;" "and *we* (Mapes) did grind" it. "*We* (Mapes) did this as any miller might, without profit [of course!] while *our* (Mapes') mills were not wanted for other puposes. *We* (Mapes) consulted with the proprietors, and after giving *our* (MAPES') views, *we* (MAPES) took their instructions," and made a mixture of Mexican guano, sugar-scum, salt, plaster, a little Peruvian guano and quick lime, which gave it "the strong smell desired by many farmers." "*We* (MAPES) knew the proprietors to be men of the highest integrity," and so innocently obeyed their instructions to smear the bags with Peruvian guano, being at the same time especially careful that no superphosphate of lime stuck to them, lest it should reveal the source of their precious contents! "*We* (MAPES) thought the name selected a had one, calculated to cause those who purchase to suppose it to be a different article"—calculated to deceive, to defraud,—but "*we* (MAPES) were only the miller," so we did not scruple to mark this mixture "Chilian guano," and to endorse Dr. HAYES' statement that it was "said to come from the coast of Chili."

We wish to do Mr. MAPES no injustice, and will therefore give his explanation of this endorsement. He denied in his July number, having any knowledge of it whatever. He now says "*it was not written for publication*," but was "*given to one of the proprietors for the purpose of being shown to two friends*, one in Philadelphia, the other in Baltimore." We are not sufficient casuists to determine which is *worse* to deceive the public, or only "two friends," but we give it as our most decided opinion that no man,—not even Prof. MAPES, is morally justified in stating that an article made by himself, in his own factory at Newark, is "said to come from the coast of Chili."

Although Mr. MAPES fully confesses that he manufactured the Chilian guano, he contends that it is a manure of great value. If it is, chemical analysis is unable to determine the value of a manure. Our analysis showed its fertilizing value to be less than $15 per ton. The guano inspectors at Baltimore and Petersburg, Messrs. REECE & PLEASANTS, analyzed it and stated it to be very inferior, in fact, comparatively worthless. The parties to whom it was consigned, demurred to these opinions, and the matter was referred to Dr. STEWART of Baltimore, who analyzed it, and gave its value as *thirteen dollars per ton*.

MAPES says "the sweeping item of organic matter which is composed of *dried blood* * * has not been properly alluded to in giving value to its parts." The analyses—every one of them, Dr. HAYES' included—show most conclusively that the organic matter is *not* dried blood. It is the refuse scum of the sugar refiners, of which MAPES has *thousands of tons* on his farm.

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THE CROPS IN CALIFORNIA.—The accounts of the crops in California are very conflicting, some representing them as excellent and others as far below an average. The *California Farmer* says: "We have conversed with many cultivators of grain along the Alameda and Santa Clara counties, and they speak very discouragingly of the crops. Many feel confident that there will not be over *one-half the quantity* of last year."

Short Horn Herd-Book.

MESSRS. EDS.—It may interest some of the Short Horn breeders who take your paper, to know that the second volume of the American Herd Book is now finally in press, and is working off at about a hundred pages a week, and I hope to have it ready for delivery by the middle of September. The number of pedigrees will be quite 2,500, with upwards of 50 very fine cuts of superior animals. The large number of pedigrees, and the great labor required in their examination, and correction of the majority of them, has delayed me longer than I anticipated when I commenced the work; but I trust the work will be acceptable. The mass of American Short Horns will be there represented, as but very few herds have been withheld from contribution. I give this notice thus publicly, to answer the many inquiries that are made of me as to the time subscribers may expect this book. LEWIS F. ALLEN. *Black Rock, July* 28, 1855.

P. S. I shall give due notice to subscribers how they can best receive the book, when ready.

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Disease Among Horses—Its Cure.

In the COUNTRY GENTLEMAN of May 31, Mr. E. LINK of Greene Co., Tenn. described a very fatal disease, somewhat resembling "blind staggers," which had recently broken out in that and adjoining counties. A correspondent of the *New York Spirit of the Times* refers to Mr. LINK's communication and says:

> This very disease broke out along the Congaree river in Richland and Lexington Districts, South Carolina, in the fall of 1852, and was very fatal. I lost three mares, three colts, and three of my mules. On the next plantation it was even more fatal than with me. In about ten or fifteen miles square, there must have been at least forty mules and horses killed by it.
>
> The symptoms are not exactly alike in all cases; but there is one premonitory symptom of this disease which, if observed, and treatment began immediately, nine out of ten will be saved. I saw at least fifteen cases, and in all of these I observed that the eyes had become more or less blue. In some cases there was partial blindness, in others the animal retained its sight. I bled several, in whom I had observed this blueness of the eye, until they dropped, and in two or three hours afterwards no trace of discoloration could be perceived, and they all got well. I think I saved three others by using a remedy given to me by Mr. N. B. Young: blister the forehead from the foretop to a level with the eyes, and give an ounce of laudanum every half hour until the agony subsides; but be sure and bleed until your patient drops. I think Mr. Young got this prescription from a Kentuckian.
>
> From my experience, I would say that it was a disease of the head. I opened several skulls, and found the brain in most of them in a fluid state, and very offensive, although the animal had not been dead more than ten or fifteen minutes. In others, there was no trace of inflamation on the brain, that I cuuld perceive.
>
> This is a fatal disease, for it is seldom discovered until the animal is too far gone. But if it once breaks out on a plantation, or in a neighborhood, if the eyes are carefully examined at least twice every day, and the animal freely bled and blistered when the eye is observed to become blue, I have no hesitation in saying that many horses will be saved. The lancet must be used promptly and freely, or death is sure to ensue.

Notes of Travel.

We have just returned from a pleasant journey through western New-York, and a few notes may not prove unacceptable to our readers.

About two years since we had the pleasure of spending a day with Ex-governor Hunt, on his delightfully located farm, near Lockport. Mr. H. was then commencing, with the assistance of Mr. James Vick, of the *Genesee Farmer*, a number of improvements in the grounds round his residence. The house is situated about five hundred feet from the road, on the summit of a gentle slope. The lower portion of the farm has been thoroughly underdrained, and what was once an eye-sore is now covered with beautiful greensward, dotted over with young but thrifty trees. A fine gravelled carriage road winds through these up the slope to the house and farm buildings, and the newly formed but well kept lawn, studded over with flower knots and choice ornamental trees and shrubs, contrasts pleasantly with an adjoining orchard of dwarf pear and other trees loaded with beautiful and delicious fruit. Wire fences with iron supports have taken the place of the time-honored but not very picturesque Virginia rails. This is a great improvement. The wire fences do not intercept the view, and the whole farm will in a few years have the appearance of a beautiful English park, worthy the residence of one whom his political opponents could designate by no worse name than that of "The Country Gentleman." An osage orange hedge, planted in the spring of 1854, looks exceedingly thrifty and handsome. It stood the last severe winter uninjured. In one hundred rods only sixty plants have died. Mr. Bancroft of Medina, furnishes the plants, sets them and fills up vacancies should any of the plants die, for fifty cents per rod.

Adjoining the farm of Gov. Hunt, Dr. Townsend & Son have a fine farm and nursery of upwards of 200 acres. They have the finest collection of dwarf pear trees we have seen for some time; the pear blight, however, is making sad havoc on some of the varieties, especially the *Glout Morceau*. A row of trees of this variety growing by the side of a row of *Louise bonne* of *Jersey* was nearly all destroyed while the latter was not injured. Here, as elsewhere, the *Bartlett* is apt to break off, at this season of the year, at the joint of the pear with the quince stock. We counted no less than six fine trees, loaded with fruit, blown over in a few rods. There is little advantage in dwarfing the *Bartlett*, as it will come into bearing quite early enough without. Dr. Townsend has had it bear in three years from the bud on the pear stock.

The corn crop in this county has been seriously injured by the cold rains. Dr. T. says "there are thousands of acres that have never had a plow or cultivator in the fields, since they were planted." We saw many such fields not only in this county, but everywhere we have been. The weeds are in many places quite as high as the corn. Surely two such years as 1854 and 5, will teach farmers the value of underdraining. Last year the corn on properly drained and cultivated land was but slightly injured by drouth, while that on land needing underdraining was not half a crop; this year the corn on drained land is rioting in almost tropical luxuriance while that on wet undrained soil is a failure; and what is true of corn is also true of other farm produce. It is impossible to estimate the immense loss the country has sustained the last two years, from the neglect of underdraining. Instead of urging farmers to "sow one acre more," we would advise them to underdrain one field more as the best means of raising cheap food for the million.

This is not an idle or extravagant assertion, as some may think. We have witnessed the astonishing effects of underdraining in Great Britain and in this country, and believe in sober earnestness that it is destined to do more for American agriculture during the next ten years than every thing else put together. At Rochester we visited the farm of H. C. Ives, Esq., who has laid down a considerable number of stone and tile drains with manifest advantage. He has also used Peruvian guano on his wheat, sown in the fall, and thinks it will pay. The difference between the guanoed portion and that not guanoed, by the side of it, is most perceptible. We hope Mr. Ives will ascertain the exact increase caused by the guano. Estimates are always liable to error.

If any are dubious as to the profitableness of expending $30 per acre in underdrains, let them visit the farms of John Johnston and Robt. S. Swan near Geneva, N. Y. After gazing at corn, yellow and stunted, as are most of the fields we pass on the N. Y. Central Railroad, it is delightful to walk through an eighteen acre field of Dutton corn gaily waving its tassels a yard above one's head. Such a field has Mr. Johnston. Standing on the side of the hills we could not reach the top of the tassels within eighteen inches. We have never seen such a piece of corn before in this state; the whole field is the same, except a few rods where an underdrain is stopped, and here the corn is *not one quarter as good*. We may say, *par parenthese*, that Mr. J. has laid 210,000 tiles on his farm, and this is only the second drain that has stopped.

When Mr. Johnston bought what was then called the "poorest farm in all creation," one of his neighbors said he "would starve" on it; but by underdraining, by growing clover, and consuming it on the farm by sheep and cattle, and by using a large quantity of oilcake as food for stock, by a judicious rotation, deep plowing and thorough cultivation he has made it one of the most productive farms in the state. Agriculture is a complex art. We must not attribute this great improvement to underdraining alone, but it lies at the foundation; the deep plowing, thorough cultivation and high manuring would have had comparatively little effect without it.

The prominent points of Mr. Johnston's system are as follows: 1. Feeding a large number of cattle or sheep in winter. For instance, late last fall he purchased 331 Spanish Merino sheep for $600, and fed them during the winter on wheat and oat straw, and half a pound of oilcake and three fifths of a pound of corn per sheep, per day. He sold them in the spring at $6 per head. The cost of oilcake and corn was $1.63 per sheep. 2. The rich manure made from the oilcake and corn-fed animals is applied to the land *in the fall*; generally it is spread on a grass field that is to be plowed the following spring and planted with corn. 3. Clover is not plowed under as a manure. The wheat is seeded down in the spring with 8½ lbs. of clover and 5 quarts of Timothy. It is allowed to lie in grass four years, being generally mown for hay. 4. Eight tons of plaster are used on the farm each year. It is sown *broadcast*, a bushel per acre, on the corn at or immediately after planting, and the clover and grass lots are supplied freely. It is, too, sown on the wheat in the fall for the benefit of the young clover next year. 5. Salt is frequently sown, a barrel per acre, on the wheat. It gives a bright stiff straw and causes the wheat to *ripen earlier*. Salt too is often sown on the corn and hastens its maturity. 6. For wheat the land is usually summer fallowed, but now since the soil is so rich that the wheat is sometimes too rank, an occasional oat or barley crop precedes it. There are many other interesting points in Mr. Johnston's management to which our space forbids allusion this week.

The farm of Mr. Swan deserves a more extended examination than we were able to give it. Mr. S. studied agriculture with Mr. Johnston, and brought intelligence, skill, great energy, practical knowledge and abundant capital to the work of improving a beautifully located farm of 340 acres, but which had been "run out" by mismanagement and neglect. Four years since, when he came in possession, the wheat on the farm produced only five bushels per acre, and some of it was plowed under in the spring. He commenced a systematic course of drainage, and has prosecuted the work with such energy that he has not a field on this large farm which is not thoroughly underdrained. We have never seen a farm in Great Britain where the drainage was more complete, *and none where there were so few open ditches*. He has laid *forty-six miles* of underdrains. The result is most satisfactory and astonishing. On one field, where four years since the wheat yielded less than five bushels per acre, there was growing at the time of our visit a crop that we should estimate at 30 bushels per acre. The corn and oats too are most excellent.

We may mention that Mr. Johnston sowed a ton of Peruvian guano in strips through a field of wheat, and the effect was very beneficial; so much so that Mr. J. intends using three tons on his wheat this fall, and Mr. Swan seven tons. Mr. J. sowed it broadcast on the land, before the last plowing, at the rate of 200 lbs. per acre, and plowed it in six inches deep.

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Raspberry Vinegar. To every pint of vinegar put three pints of raspberries. Let them lie together two or three days; then mash them up and put them in a bag to strain. To every pint, when strained, put a pound of crushed sugar. Boil it twenty minutes, and skim it. Bottle it when cold.

Improving an Old Meadow.

Messrs. Editors—I have a lot containing about six acres, the soil of which is of a light mucky nature, from six to eighteen inches deep, with a hard clayey subsoil. Formerly it produced, year after year, heavy crops of hay. It finally failed, and I plowed it up, since I have been unable to seed it, so as to produce one half as much as formerly. This, I apprehend, is in consequence of water standing upon the soil, in the fall and spring, and thus rendering it a complete honey comb. Now, what shall I do with this ground, in order to get it into a good meadow? I know the answer will be "first drain it well." But the ground is so level, that it is doubtful whether it would do any good; and then, stone, with which to fill the ditches, would have to be drawn a considerable distance, and finally, the expense would amount to near two hundred dollars, to do it thoroughly.

I suppose tiles will not drain off surface water, well?

There is another way in which I propose to put the "*snap*" into this piece of land, and that is, by heavy manuring; and, it is upon this point, in particular, that I wish to have your opinion. I have not manure to spare, with which to manure this lot, from my barnyard. How would it do to put on three hundred pounds of guano to the acre, and seed it to clover and orchard grass? Orchard grass formerly grew upon this lot, and so far as my experience goes, I set it down as one of the very best grasses, whether you take into consideration the weight or the quality of the hay. J. W. L. *Solsville, Madison Co., N. Y.*

You do not say why the land is now more liable to excess of water in the spring and fall, than when it produced annually heavy crops of grass; but probably your opinion is correct. If it is, you cannot effect a permanent cure without removing the cause of the disease. You must "first drain it well." If this cannot be done, it is impossible to make a *good* meadow of it. Stagnant water is as injurious to plants, as carbonic acid is to animals. You would not expect a horse to thrive, even on the best of food, in an impure stable, neither should you expect an edible plant to flourish in an unhealthy soil, even with the best of food in unlimited quantity. "Heavy manuring," with guano, superphosphate of lime, ashes nor any other fertilizer, foreign or domestic, can dispense with underdraining on wet land. If you can get an outlet for the water, 3 and a half to four feet deep, there will be no difficulty in draining the lot however "*level*" it may be. It is a great mistake to suppose that tiles will not drain off the surface water. Bury the tiles or pipes two and a half to three feet deep, let them have the proper descent, and a good free outlet, and we will guarantee that the surface water finds its way to them, even through the most tenacious clay. We speak not from theory alone, but from actual practice and extensive observation.

Good Peruvian guano is the best artificial fertilizer for meadows and will probably pay you well *after underdraining*. It will be money thrown away to sow it on wet land.

The Cultivation of an Exhausted Soil.

A few years since, it was the fashion of many agricultural writers, especially of those who made any pretensions to science, to attribute any deficiency of farm products in a county or state to the gradual exhaustion of the "mineral plant-food" of the soil. "Look" said they "at the eastern counties of the state of New-York; especially at Rensselaer, Albany, Columbia, Greene, Ulster, &c. Half a century has barely passed since these counties produced 50 bushels of wheat per acre and other crops in proportion, now, according to the census of 1845 they produce but a little over 5 bushels of wheat per acre."

We have just returned from a visit to the beautiful farm of B. B. Kirtland, Esq , Greenbush, Rensselaer Co., N. Y., and we would that some of these writers could witness the magnificient crops now growing on this "exhausted" soil. The original farm contained, if we mistake not, about 300 acres, and had been so "run" by the former owners or tenants that when purchased in 1831 and a part of it sown to oats, the yield at harvest *was less than the seed;* and in 1832, hay had to be purchased for the horses and cattle. The farm has since been divided, and now half the original land supports 50 head of cattle, and produces for sale 50 tons of hay annually besides a considerable quantity of rye, oats, potatoes, &c. In 1850, a field of five acres of Mediterranean wheat, yielded *thirty bushels per acre;* and four acres of Hutchinson wheat yielded 25 bushels per acre.

How has this improvement been accomplished? By good tillage, and the judicious management and use of all the fertilizing materials that could be made on the farm. No potash; no phosphates; no "mineral plant-food" has been brought on to the farm.* These indispensable elements were lying in a latent condition in the soil; and it is certain that at this present time the soil contains even *less of them* than it did in 1831; for their has been a constant exportation of them in the hay, grain, potatoes and milk; but they are now in an active, assimilable condition. Underdraining, good tillage, plowing undor clover, the free use of organic matter, muck, &c., render the inert potash, phosphates, &c., of the soil available more rapidly than they are exported, and hence the farm increases in fertility every year.

Our excellent friend Johnston writes that he has corn from five to six feet high on his fertile Seneca County farm. Mr. Kirtland has several acres of corn, *over six feet high* when the leaves are stretched out. And a field of oats adjoining will produce 80 bushels per acre. Potatoes look well everywhere this year, but Mr. K. has fifteen acres of of Merinos, Junes, Mercers, and Duke of Cumberlands that will be hard to beat. The field had been in grass for 20 years, and for the last 10 years had been used as a cow pasture. This spring it was turned over with a Michigan Double Plow, and the potatoes planted, in rows, without any manure. If anything the vines are too luxuriant.

A large quantity of choice fruit is raised on the farm. The apple, plum, and pear trees are loaded, and prove that the scraping and cleaning of the bark, the cultivation of the soil, and the judicious but free use of the pruning knife meet a rich reward.

What a splendid garden. How healthy and vigorous are those fine beds of melons; no bug dares look at them now, and when the plants were young they were fenced out with boxes. Here is a fine row of summer celery, and there,any quantity of delicious raspberries. Help yourself. This *Fastolff* is very fine. Yes, but this Red *Antwerp* is of better flavor, and "picks" easier. Franconia is perhaps better than either *for market.* We are too late for strawberries. There is not a single berry left on that large bed of *Crimson Cone.* Is that a good variety? "None better in this vicinity. It is large, firm, hardy and prolific." What fine Early York cabbage; no grub has troubled them, and here are cucumbers by the bushel. Why cannot every farmer have such a garden? Over the fence there, on rather stiff soil, is three quarters of an acre of orange carrots dressed with 400 lbs of Peruvian guano. They are, as they ought to be, a fine crop. For horses, Mr. K. thinks half a peck of oats and a peck of carrots are equal to a peck of oats. Here is a fine lot of onions; but how thick they are; what shall you do with them? Thin them out, dry them and replant next spring. In this way you get very fino onions.

The barn-yard is supplied with a constant stream of water by an hydraulic ram, from a spring a quarter of a mile distant, and 60 feet fall. Mr. K. contemplates forming a reservoir and using the surplus water, drainings of the barn yard, &c., for irrigating purposes. No farm could lie better for it,—and we will guarantee that nothing will pay better.

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A Colt Poisoned —Mr. Oliver Bowen, Eastford Ct. writes us that he has recently lost a colt by poison. He was a fine sprightly animal, and grew very fast till twenty-five days old, when he became sick and refused to suck the dam; frothing at the mouth and nose, grating his teeth, &c. Mr. B. supposed it to be a case of poison and "treated it accordingly, by giving salt and water and other remedies prescribed by the neighbors; but all to no purpose." In eight days the colt died. On a post mortem examination, a worm was discovered in the stomach two and a half inches in length, with numerous feet or claws, with hooks or horns at the head. Death, however, was supposed to have resulted from "eating the leaves of a white bush growing in pastures, about the size of whortle berry, having white bark and blossoms, and said to be very poisonous." Mr. Shearman, a neighbor of Mr. Bowen, lost a colt a few years since in a similar manner. Mr. B is desirous of ascertaining from others who have suffered in the same way, information on the subject, treatment, &c.

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*It may be proper to state that Mr. K. has been in the habit of purchasing a considerable quantity of brewers grains for his milch cows, and consequently a small quantity of phosphates, potash, &c. have been brought on to the farm, but not enough to affect the above statement Grains contain a very large quantity of nitrogen (4.9 per cent in dry matter,)and hence the droppings from the cows would be exceedingly rich in ammonia.

Chinese Arbor Vitæ.

Luther Tucker, Esq.—Can you inform me of the nature, proper climate, and treatment at all seasons, of of the Oriental or Chinese Arbor Vitæ, a native of China and Siberia in rocky situations; and also on the mountains of Japan? Judging from this, I should think the climate about this city in the winter would not be too cold for them, but my personal experience is different. I also learn they become quite hardy even in the climate of Edinburgh. If not too tender for this climate, what can be done for the hedge to protect it from the cold and winds of our bleak winters?

What kind of soil do they require, and where planted as a hedge, should they be kept carefully headed? John W. Paine. *Troy, N. Y.*

The Chinese Arbor Vitæ is usually hardy in the middle portions of New-York, and forms a neat ornamental tree. It is however sometimes injured, but usually, so far as we have observed, by exposure to the rays of the sun after intense cold. Hence in a place shaded on the south, as on the north side of a building, high fence, or evergreen trees, it would probably always succeed. Out of many trees, only a portion were injured the past winter, with a temperature 26° below zero.

But we would advise our correspondent not to undertake a hedge with this plant. The *American* Arbor Vitæ, (called erroneously, *white cedar*, in western New-York,) is incomparably better, in every respect—hardier, more vigorous, bearing shearing better—and much easier to procure. It will grow on almost any soil—and may be procured of most nurserymen at a moderate sum by the thousand.

Rennet for Scours in Cows.

Editors Country Gentleman—In your last Cultivator, I find an inquiry for a remedy for the scours in cows, to which I would answer, that in the fall of 1837 the scours got among my lambs, and quite a number of them died of the disease before I could stop it. A friend informed me that he had a two year old steer that had the same disease for several weeks, and every medicine that he administered failed, till some one recommended rennet. He gave it, and it effected an immediate cure. I then commenced to give it to my lambs, liquid, the same as prepared to set a curd for cheese. I gave four tablespoonfuls to each lamb, and every one recovered, and I have continued to use it to this day, and have never known it to fail in a single instance, except when a sheep has had the disease while dying with old age. One dose generally cures; if not, repeat it in twenty four hours. I give six tablespoonfuls to an old sheep; from six to ten times that quantity, I should think, would answer for a cow. Reed Burritt. *Burdett, N. Y., July* 10, 1855.

Another correspondent writes that he had a cow taken with scours, from eating swamp hay, and after trying beech bark, iron wood bark, Evan root and mullein steeped, and other popular remedies. The cow was given up to die; but as a last resourse he gave her a pint of whisky into which was stirred four tablespoonfuls of black pepper. This revived her a little. He then at the recommendation of a friend took a rennet soaked it in water, and gave her a quarter of it daily and "she is now to all appearance getting well."

Heavy Fleeces—Leicester Sheep, &c.

A sheep-shearing festival was held, in June last, at Ann Arbor, Michigan, under the auspices of the Washtenaw County Agricultural Society. Of the several varieties of sheep, only five were exhibited, namely, the Spanish Merino, the French Merino, the Saxon, the Silesian, and the Leicester. The Spanish Merinos were by far the most numerous—a pretty distinct indication of the variety which is the greatest favorite in that section of country. Among the fleeces shorn on that occasion, we observe some quite remarkable in point of weight. The following were among the most remarkable; and as the cost of raising wool bears some near proportion to the weight of the live carcass, and as the fleece should bear some proportion to the carcass, we give, as a guide to a more correct judgment, the weight of the animals before being shorn.

	Weight of sheep with wool on. lbs.	oz.	Weight of fleece. lbs.	oz.
Leicester buck, 3 yrs. old,	200	12	8	6
Leicester ewe, 3 yrs. old,	141	4	9	14
Sp. Mer. buck, 4 yrs old,	136	8	8	11
Sp. Mer. buck, 4 yrs. old,	133		9	8
Sp. Mer. buck 5 yrs. old,	139		11	11
Sp. Mer. buck lamb, washed 3 weeks,	97	3	8	
Sp. Mer. buck, 3 yrs. old,	156		12	6
Sp. Mer. buck, 3 yrs. old,	118	8	13	6
Sp. Mer. buck lamb,	62	2	8	11
Saxon buck, 4 yrs. old,	117	2	6	1
Saxon buck, 2 yrs., wool of 2 yrs. growth.	89		3	1

The wool of the Leicester sheep, a coarse wooled variety was not put into competition with that of the finer wooled varieties. We have given the weight of two fleeces of Leicester sheep, as some help towards determining the question of the profitableness of raising that variety for mutton; some being of opinion that at present prices of mutton and wool, a flock of these sheep would yield as much profit to the breeder, or more, perhaps, than one of any other variety. Some lambs of the Leicester variety were exhibited, of the age of six to eight weeks, which were calculated to weigh 60 lbs. to the carcass, and to be worth $3 or $3 50 per head to the butcher.

It seems to be a general opinion that the wool of the Leicester breed of sheep is of little value. Mr. Stephens, in his Book of the Farm, gives an opinion of a very different description. He says, "the wool is of the most valuable description, not on account of the *fineness* of its quality, for many short-wooled sheep have much finer wool; but its *great length*, as well as its tolerably fine quality, renders it useful in the manufacture of all fabrics which require combing wool, and in which worsted is employed."

If, as seems generally supposed, the weight of the fleeces of Merino sheep will, on an average, amount to one-twentieth of the live weight of the animals from which they are taken, sheep weighing from 80 to 90 lbs., usually giving fleeces of from 4 to 4½ lbs., then some of the above fleeces were quite remarkable, being considerably in advance of that proportion. B.

Influence of the Moon.

An esteemed correspondent, at New Haven, Conn., has sent us a communication of some length, on the "Influence of the Moon in Agricultural Operations." Its length precludes its insertion entire, but we will state briefly its ground and reasonings.

Our correspondent thinks the repeated agency of the moon, even if it does not merit notice on account of its truth, should claim more attention in this age of investigation and progress, from the general prevalence of the belief in relation to it. He mentions several instances of the popular belief, which he thinks worthy of further examination, among which are Pliny's notions that grain, to sell, should be cut at the moon's increase, being heavier;—and to keep, should be cut at its decrease, being then more incorruptible. He cites the opinion of the French poultry fanciers, that eggs will be more likely to produce chickens at full moon; that pigs should not be killed at the moon's increase; that trees should be cut near the new moon, &c. &c.

He thinks it "time enough to seek for a cause, when we ascertain the facts" in the case; and that when Arago made his accurate and extended observations, his mind had been previously "made up" on the subject.

Now, we can assure our correspondent that we highly approve at all times, a spirit of investigation, and a system of observations with a view to useful and practical results. But there may be some points, towards which our time and labors may be directed with so little prospect of success, as to render it very unwise for us to waste our energies upon them. Life is short; and they who accomplish most, usually do so, in proportion to the judgment they evince in directing their labors towards the most profitable pursuits,—and not always to the *amount* of labor they perform.

For example,—suppose we expend five years of labor in observing the influence of an increasing or decreasing moon on the ripening of grain—for nothing short of five years of labor would answer, to distinguish this influence from the innumerable operating causes of heat and cold, moisture and dryness, clear and cloudy skies, soil, cultivation, manure, blight, and so-forth — and then find the opinion groundless, what have we attained? We have, it is true, settled *this* point; but we know of no limit to the number of similar "opinions" that would also need settling. Shall we not therefore, as some guide to the probability of success, look a moment at "the cause,"—which our correspondent thinks best not to do? Wherein then, can ripening vegetation be affected by the difference, whether the sun happens to be shining on the right or the left side of the moon—which in fact constitutes all the difference between a decreasing and an increasing moon?

We are sometimes told that the difference in the growth of plants at new and full moon, is owing to the increased light at the latter period. Now, it has been fully demonstrated that the light of the sun exceeds that of the moon by more than two hundred thousand times; consequently a plant would get more light during one good day of sunshine, than in two hundred thousand nights, or *six hundred years*, of full moon. Now, to examine this influence on vegetation, (in connexion with a thousand other influences,) would not only require several years, as we have already shown, but the examinations would have to be made with a minuteness and accuracy, in order to determine such nice shades of difference, far exceeding any thing ever yet attempted in accurate agriculture. So great, indeed, would be the other disturbing causes, as compared with the nice influence of lunar light, that it would be very much like trying to determine the increased depth of the sea occasioned by a drop of rain, by sounding on a rough and stormy surface.

Now, all or nearly all the popular opinions of the moon's influence on vegetation, boiled pork, and setting hens, have resulted from the loosest and most random observations Many of them are at direct variance with each other; and yet such conflicting opinions will both become verified about half the time. There is no rule whatever, that would not be likely to come right occasionally. Suppose, for instance, that the robin, by singing with his tail pointing due west, denotes rain within seven days,—would not this rule sometimes hit the mark? As with all other similar rules, its supporters would always observe the coincidences, and forget the failures. We have known the admirers of these rules dodge about in the most ingenious manner, when reminded of the failures. A prediction of drouth, for example, would be sustained by such remarks as, "O we have not had *much* rain—a small shower, comparatively." Or the reverse, with, "Well, there were a few drops fell—it looked very much *like* raining, at any rate."

We would much rather trust the observations of Arago, the astronomer, even if his mind was "made up,"—for these observations were made with careful and *accurate measuring* of the precise quantity of rain that fell, from which there could be no dodging—we would much rather trust such observations as his through a series of years, than the loose and one-sided ones we have just mentioned.

Many years ago, a "Weather Table," called Dr. Herschell's, (to give it currency,) was published in some of the Agricultural Almanacs, with a blank leaf for a corroborating register at every month. One season's careful observations, and a record kept for each day (and not, as is usually done, registered in the memory, to be forgotten or not, as was most convenient,) told very plainly at the end of the year, that there was nothing the least reliable in this, or any other set of rules, for the weather was found to "go on" without any regard to the moon or any one else. For although there were occasional coincidences, there were as many contradictions at other times.

But the great leading objection, it strikes us, to any attention to the changes of the moon in controlling the operations of the farmer, is its improper interference with his regular routine of labor and operations. The cultivator, who delays sowing a crop, or securing a harvest, because the right time in the moon has not yet arrived, will often lose most important advantages, or incur serious disaster. The *unavoidable* delays and interruptions to the farmer's plans, are already sufficiently great, without any further addition. The importance of undivided attention in any pursuit, was forcibly and justly expressed by a wise writer "He that observeth the winds shall not sow, and he that regardeth the clouds shall not reap;" and with no less propriety it may be added, "He who governs his labor on the earth, by the changes of the moon, shall have a scanty harvest."

Experiments with Salt.

In the No. of *The Country Gentleman* dated May 31, we find some details of experiments with salt, by Mr. E. MARKS, of Camillus, which have interested us not a little. The proper mode of using salt, in order to derive benefit from it to growing crops, or, in other words, the particular circumstances in which it may be used advantageously, as well as those in which it will operate only injuriously, seem not yet accurately ascertained. More light is needed upon this subject. We feel under obligation to Mr. MARKS for his contribution of a few facts which may help to dissipate the darkness which still rests upon the subject. We have carefully noted them, and put them aside for future reference, when other facts of a similar kind are made known to the public. As yet the facts in relation to the effects of salt on crops are too few to allow of any reliable or logical deductions. Let as many as feel interested in the improvement of practical agriculture, or in extorting from Nature her profound secrets, or in coaxing her, by the utmost devotion to knowledge, to give up some of her store yet locked up, follow the example of Mr. MARKS, and make experiments, giving their brethren the benefit, as he has done, of a statement of the results.

As we have made an experiment on a small scale this season, we give the result so far as yet apparent. We took two rows of Indian corn, when about two inches high, and applied after hoeing them, a small tablespoonful of salt to each hill of one row, and a like quantity of plaster to each hill of the other row. Within a few days after having rain enough to dissolve the salt, there was a perceptible difference between the two rows. The young corn on the row treated with salt was as small in size as it was a week or so before, and more of a yellow color, while on that row to which plaster had been applied the corn was obviously growing vigorously and rapidly, and was of a rich green color.

At the date of this writing, (July 2d,) the corn on the row treated with salt has not yet grown much since the salt was applied and is of a yellowish caste, while on that which was treated with plaster it is growing luxuriantly, almost every hill being twice as tall and large as on the salted row. The next row, to which no application was made, is more forward altogether than the salted row.

The soil is a clay loam with a preponderance of clay, which has always yielded good crops of wheat and grass.

It would be premature to speculate on the *modus operandi* or manner in which the salt operates in such a case. We may *guess*, with Mr. MARKS, that salt, by making the soil to which it is applied cold and moist, may be thus injurious to corn. But for inferences which will be *reliable* we must wait until we have a larger collection of facts, from which to deduce them. We shall welcome any such with much interest, as sources of light upon a subject as yet involved in considerable darkness. OBSERVER.

Rod Fences.

In a communication of mine on "Fencing and Fences" published in a late No. of The Cultivator, when I stated that the "Rod fence not many years since was first introduced in *this County*, where if I am correctly informed it *originated*, &c," I intended to give Salem County, N. J. the credit of being the *birth place* of the invention. The printer, (being perhaps more liberal minded,) by the addition of a single letter to the word, made it read *Country*, and thus scattered it to the four winds. And near the conclusion of the article, where it now reads, "and the *sides* thrown off," it should be, and the *riders thrown off*, meaning the top rails. These are small matters, and would not have been noticed at this time, had not my attention been indirectly called to them, by the inquiries of your correspondent "A. B.," who, in the COUNTRY GENTLEMAN of last week, solicits some additional information in regard to the construction of the Rod Fence, and thus furnished a fit opportunity to make the correction. I now reply to his inquiries.

1st. I do not recollect to have read any description of the "Wave Fence," and therefore cannot say that *it* is identical with the rod fence. Take the common worm rail fence. Remove the stakes and the riders, bore holes through the rails at the joints where they intersect each other, and through these holes, insert the rod, and you then have the *rod fence*. This of course is not the plan of construction, but it will give a correct idea of the fence itself.

2nd. The holes should be bored, as I stated, with a half inch auger, but the *rods* need not be more than ⅜ of an inch in diameter, four feet, four or five inches, is an approved length.

3d. In most cases, the rod is *not* bent over the top rail, but left erect. The blocks (if blocks are used between the two top rails) should not be so large as to make the space between them so that cattle or horses can get their heads through the opening—should this happen, or crooked rails render it necessary, bending the rods would be the *remedy*.

4th. The rod is not made (or at least need not be made) fast into the stone at the bottom, merely inserting it in a hole, say ¾ of an inch deep, will be found to prevent, in a great measure, the rails from slipping from the foundation, and render the fence more secure against the winds. Where the worm fence is in use, all practical farmers know, that in making it, unless you give it plenty of *worm* (as we call it here,) it will at best be but a tottering fence, the sport of every high wind. This is no less true of the rod fence, nevertheless to save *rails*, some of the *penny-wise* adopt this method in both instances, regardless of the homely maxim that "A thing well done is twice done." To conclude, with six good rails to the panel and a substantial stone block, with a hole drilled in the center for the rod, a fence can be constructed, that with a four feet worm, will serve for all ordinary purposes and be found as durable as any other rail fence now inuse. C. *Salem Co., N. J., 7th Mo.* 3, 1855.

ENTOMOLOGY.—NO. IV.

The Apple Plant Louse.

Having in preceding numbers given the readers of the COUNTRY GENTLEMAN and CULTIVATOR some account of a bark-louse upon the Osage Orange, the hunter weevil, and the chinch bug, I here present them with a history of the apple plant louse, and propose to continue these communications from time to time hereafter, in a series of articles, chiefly in reply to the numerous enquiries of the subscribers to these papers respecting injurious insects. It is hoped that correspondents will in all cases forward specimens of the insects of which they write, for in most instances the name can only be authentically determined from an inspection of specimens These should be inclosed in a goose-quill, with a wooden plug, if the insect is soft and delicate, or packed in dry sawdust in a tin box if it is of a more firm and hard consistence. And if it is a worm or larva, it should be placed in a large tin box and surrounded by a plentiful supply of leaves or other substance on which it feeds, and forwarded by express, that it may come to hand alive, and the perfect insect be bred from it, if it proves to be an unknown species. Letters of enquiry should also give a full and definite account of the particular injury done by the insect, and all the facts in its history within the knowledge of the writer. It is hoped that our conjoint labors may thus elicit and place on record much interesting and valuable information upon the economical entomology of our country.

The following communication forms the basis of the present article:

BELCHER, Wash. Co., N. Y., June 25th, 1855.

MR. TUCKER—I have herein enclosed a shoot from one of my young apple trees, which as you will perceive, is nearly covered with insects. My orchard consists of about 400 trees, most of which were planted four years last spring, and they are as fine trees as I ever saw of their age. Two or three years ago, I noticed this insect on one or two trees; since then they have increased so rapidly that every bud, leaf and twig, on about one-third of them, is infected similarly to the one I send you. Until this summer their effects have not been serious. They have now become so numerous on many of the trees, that they have nearly or quite checked their growth, and the leaves on some of them are beginning to wither and die. They cause the bark of the tree to turn black, the leaves to curl so as to form a complete circle, which affords them a very good protection. The tree emits a very offensive smell, and its fruit is not more than half its usual size.

Latterly I have made some inquiries of those who have orchards of the same age, and they all make similar complaints respecting this insect: none of them however, (like myself,) know of any name for it, yet I presume it is well known to you.

If you can give me any information respecting this insect, or any means of eradicating it, through the *Country Gentleman*, it will be thankfully received.

Respectfully yours,

WM. GILCHRIST.

The insects inclosed in the above communication are the common Plant louse of our orchards, and pertain to the order HOMOPTERA, the Family APHIDÆ and the Genus *Aphis.* This genus is distinguished from all other insects by having fore wings with one longitudinal vein (the rib vein), from which branches three oblique veins, the last or outermost one of which is twice forked. The insects of this family and of the closely allied family COCCIDÆ or Bark-lice, are among the greatest pests which the fruit-grower and the gardener have to encounter. They are astonishingly prolific; and every kind of tree, shrub and herb, it is probable, has a species of louse infesting it; whilst many have two, three or more. Thus the apple tree has a Wooly-louse infesting its roots, another upon its limbs, and a third species which commonly locates itself at the origin of the twigs; it also has a species of Bark-louse, together with the Plant-louse which we are now to consider, and another similar but slightly larger species, which I met with in the orchards of Illinois last autumn. We thus have six species of lice infesting the apple trees of this country. Two of these have not been hitherto described. I discovered them in the course of my investigations the past year. And the one first alluded to above, has never been but briefly noticed. The other three have long been known, both in Europe and this country. A full account of each of them will be contained in my forthcoming Report upon the Noxious Insects of the State of New York; and I propose at present briefly to notice one of them, in answer to the inquiries of Mr. GILCHRIST.

In many instances it is extremely difficult to determine whether the lice upon our American trees and plants are identical with those which occur upon the same or similar vegetation in Europe, the descriptions given of them by the old authors being so very brief, and often drawn up from a superficial examination of the species. And I have heretofore been in much doubt whether this common Aphis of our apple trees was the same insect which similarly infests the orchards of Europe, named *Aphis Mali* by Fabricius; that species being described by him, by Kellar and others as being of a green color, whereas our insect in its winged state is almost invariably black, its abdomen only being green. But having recently been favored with specimens of the European insect, from my esteemed friend, Dr. SIGNORET of Paris, and also on comparing our Aphis with the description given of the European by M. Amyot (Annals Entom. Soc. France, 2d series, vol. v. page 478) and the detailed account of the veins of its wings, furnished by Mr. Walker, (List of British Museum, page 985) not the slightest doubt remains in my mind, but that the insects of the two continents are identical, and that upon this side of the Atlantic it has been introduced by the trees brought hither from Europe.

Grouped together upon the twigs and leaves which it infests, individuals will be found in all stages of their growth. When newly born they are nearly white, but soon become of a pale dull greenish yellow, which is their prevailing color during the larva period of their lives, the horns, the nectaries or two small tubes near the hind end, the knees and feet being dusky and sometimes black. The mature females are generally without wings, and are much broader than the larvæ. They are shaped like an egg, the smaller end being forward, and are less than the tenth of an inch long. They are of a pale yellowish green color, commonly with the head yellow, and some stripes of a deeper green lengthwise of the body, but sometimes only a single stripe on the middle of the back, and transverse ones at each of the sutures between the segments. The beak by which it sucks the juices of plants, the horns, the nectaries and the legs are whitish, with their tips black or dusky, and the knees are also commonly dusky. Winged individuals, which are commonly the males, measure but the twentieth of an inch to the tip of the abdomen and somewhat more than the tenth of an inch to the tip of the wings. They are of a black color, the abdomen green, with a row of black dots on each side forward of the nectaries.—The nectaries also are black, and reach about half way to the tip. In other individuals they are longer, reaching to the tip, and these have a black, tail-like appendage about a third of the length of the nectaries. The legs are whitish, the feet and knees black or dusky. The wings are transparent, but not perfectly pellucid, the veins dark brown, the rib-vein paler and towards its base whitish, and the oblong opake spot at its tip is dull white.

Early in the spring, sunk deep in the cracks and crevices in the bark of the apple trees, may be seen numbers of small, oval, black, shining eggs, from which these insects are produced. Scraping off the dead bark of old trees, and coating the trunks of all the trees with whitewash at that period of the year, is a practice of much utility, since thereby most of the eggs of this and some other insect depredators will be destroyed and the health of the tree promoted. These eggs hatch quite early, as soon as the buds begin to expand, and the young lice locate themselves upon the small, tender leaves, inserting their beaks therein and pumping out their juices. All of the lice thus hatched are females, and reach maturity in ten or twelve days. Without any intercourse of the sexes, these females that were produced from eggs, now commence giving birth to living young, bringing forth about two daily, for a period of two or three weeks, when, having become decrepid with age, they perish. The young mostly locate immediately around their parent, as closely as they can stow themselves, and reaching maturity after a similar length of time, in their turn become parents. Thus these vermin continue to breed, and as fast as new leaves expand they are in readiness to occupy them. When favorable circumstances attend them, their multiplication surpasses all power of computation. In the warmth of summer they attain maturity in less than half the time they do early in the spring. And like most species of the Aphides they at this period of the year produce winged as well as wingless females, the former dispersing themselves to found new colonies upon other trees. There are from sixteen to twenty generations in the course of the season, from twenty to forty young being produced from each parent. Thus from one egg, as stated by Mr. Curtis, in seven generations, 729 millions of lice will be bred. And if they all lived their allotted length of time, by autumn everything upon the surface of the earth would be covered with them. When cold weather begins to approach, males as well as females are produced, and their operations for the season close with the deposite of a stock of eggs for continuing their species another year. On the last day of last October, it being a warm sunny day after many nights of frost, I observed myriads of winged and apterous lice wandering about upon the trunks, the limbs, and the fading leaves of all my apple trees, many of them occupied in laying their eggs. These were scattered along in every crevice of the bark, in many places piled up and filling the cracks, and others were irregularly dropped among the lichens and moss growing upon the bark—every unevenness of the surface, or wherever a roughness afforded a support for them, being stocked with as many as could be made to cling to it. The eggs were then of a light yellow or green color, and were so slightly glued in their places that it was evident by far the largest part of them would be washed away by rains or brushed off by the driving snows of winter. But I by no means anticipated such a great diminution in their numbers as actually occurred. I should judge that in the spring several hundreds had disappeared for every one that then remained.

It is stated by Mr. Gilchrist, these lice locate themselves upon the green, tender succulent shoots which have grown the present season at the ends of the twigs, and also upon the leaf-stalks and under surface of the leaves. It is not common for this species to curl the leaves which it infests, in the manner stated by Mr. G., although the lice upon the peach, the snow-ball, and many other trees and shrubs wrinkle and distort the leaves in this way. The honey-dew which these lice secrete, and which may often be observed in a little clear drop upon the ends of their nectaries, falling upon the leaves and evaporating, often coats them over with a shining surface, like varnish; and the bark of infested trees has the peculiar black appearance noticed by Mr. Gilchrist. But I have never observed any odor arising from such trees. Ants are always found wherever a colony of Plant-lice is congregated, being attracted hither to feed upon the honey-dew, which forms an important part of the nourishment of these insects. To obtain it, the ant gently touches the back of an Aphis with his horns, whereupon the Aphis ejects a drop from one of the nectaries, which the ant immediately sips. Plant-lice have hence been designated the ants' kine or cattle, as they regularly milk them, as it were, and stand around them constantly, herdsman like, driving away any intruder and guarding them from molestation. And to examine a colony of lice we are always obliged first to brush off or destroy these, their heroic defenders.

Plant-lice also have many insect enemies which in various ways attack and devour them. In consequence of one kind of these destroyers being seen so constantly upon infested plants, I have known persons who made it a regular practice to search for and kill them, supposing it was them which bred the Plant-lice. Fatal mistake! It is therefore highly important that every person who possesses a garden or an orchard should be acquainted with these destroyers of the Plant-lice, that he may distinguish his friends from his foes. But, as it would extend the present article to an undue length to introduce a notice of them here, they will form the subject of our next communication.

Whenever Plant-lice become numerous, one or more of the kinds of these their destroyers also congregate and multiply, so that in an incredibly short time, a week or less, trees which are thronged and over-run with these vermin, become entirely rid of them. This is so commonly the case, that I entertain scarcely a doubt, that before this paper falls under the eye of Mr. Gilchrist, he will not be able to find a single insect remaining upon his trees. But, if his orchard is not thus fortunate—for it sometimes happens that the Aphis is not discovered and subdued by its enemies, and that the trees on which it becomes multiplied, have their juices extracted to such an extent that they are greatly injured and in some cases killed by this depredator—to what measures can he resort to avert the impending calamity?

Drenching the infested vegetation with strong soap-suds or weak lye is a remedy that has been much recommended and is certainly one of the most efficacious within our knowledge. But it is only those insects which are wetted by the solution that are destroyed. These are creatures which "sprinkling" will not cleanse from the tree; "immersion" must be resorted to. As it is the ends of the twigs which are chiefly infested, Mr. Gilchrist will be able to rid his trees to a great extent, by preparing a solution of this kind, in a large basin or a small tin pan, and holding this under the infested twigs, bend them one after another down into it, holding them there for several seconds. This will in most cases destroy all of the lice upon the twigs thus immersed, and will cleanse and impart new vigor to the young trees. But is by no means so infallible a remedy as some writers have represented it to be. Some of the lice, perhaps from being more hardy than the generality of their race, will survive. It, however, will probably reduce their numbers so far as to allay all fears of their injuring the trees further the present year.

Tobacco water, made by pouring a gallon of boiling water upon a quarter of a pound of tobacco, and used in the same manner as above directed, has been reported as a certain remedy, but I have made no experiments with it. It may be worth while for Mr. Gilchrist to try this upon part of his trees, if they yet continue to be infested, and we shall be happy to have him communicate to us the result.

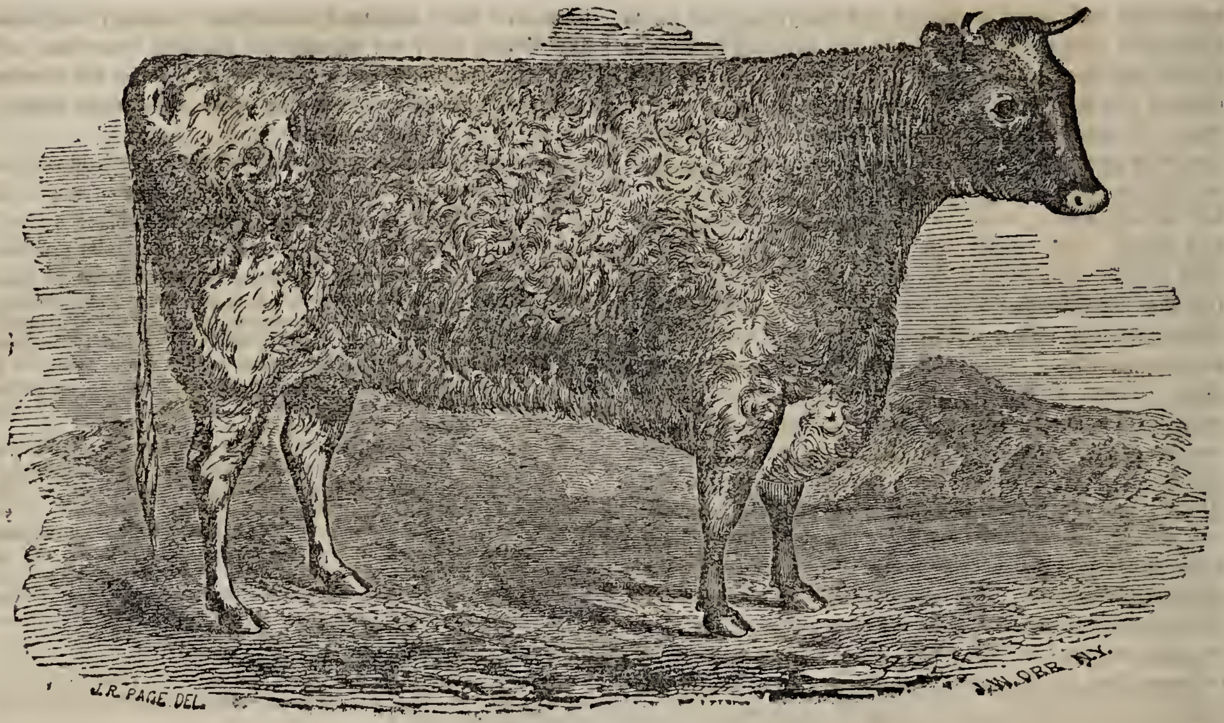
The only remedy known, which is sure of completely ridding infested vegetation of all the Aphides upon it, is the smoke of tobacco. But unfortunately this can only be resorted to in the case of rose bushes and other low shrubs or small trees. For enclosing a shrub to be operated upon, gardeners abroad use a large box, a hogshead, or a kind of small tent humorously described some time since by Prof. Lindley, under the name of a "Parapetticoat,"—made by sewing the upper end of a worn-out but entire petticoat to the outer edge of an opened parasol that has been thrown aside, any holes in its cover being first mended, and a staff six feet long securely tied to its handle. The petticoat being then raised up in folds to the parasol, the staff is inserted into the ground under the centre of the infested shrub, and the petticoat is drawn down to surround and inclose all of the foliage of the shrub. The interior is then filled densely with tobacco smoke for the space of five or ten minutes, or long enough to insure the fumes penetrating every curl, plait and crevice of the foliage. The apparatus is hereupon removed and the foliage immediately washed with lukewarm water from a large syringe, else it too would be liable to be destroyed. This utterly exterminates the Aphis from the shrub, every insect being suffocated and dropping from the plant, so that

> "unnumbered corses strew the fatal plain."

As the trees of Mr. Gilchrist are young and small, if the Aphis still infests them as extensively as when his letter was written, it may be his best course to resort to fumigation, constructing some cheap covering, upon the plan of Prof. Lindley's Parapetticoat, and filling it with smoke, by throwing tobacco upon a small dish of live coals placed under it.

Asa Fitch.

Salem, N. Y., July 9, 1855.


J.R. PAGE DEL.
J.W. ORR. N.Y.

Maid of Oxford.

Bred by and property of Noel J. Becar, Smithtown, winner of 1st prize in the class of two year's old heifers bred in this country, at the New-York State Fair in October, 1854. Got by Lord of Eryholme (12,205;) dam Oxford 13 by 3d Duke of York (10,166,) g. d. Oxford 5 by Duke of Northumberland (1940,) gr. g. d. Oxford 2 by Short Tail (2621,) gr. gr. g. d. Matchem Cow by Matchem (2281,) gr. gr. gr. g. d. by Young Wynyard (2856.)

Answers to Inquiries.

The Best Fruits.—As you know everything, please tell me the four best apples, plums, peaches, cherries; best nectarines, apricots; early and late; soil for each, and any book on the subject. Also the best work on kitchen garden. E. Parkes. *Coffee Landing, Hardin Co., Tennessee.*

We shall not undertake to give the *best*, as standards vary, but will give a good select list, for that region of country. *Apples*—Early Harvest, for summer; Fall Pippin, for autumn; and Prior's Red and Rawles' Janet for winter. *Plums*—Imperial Ottoman, Lawrence Gage, Jefferson, Coe's Golden Drop *Peaches*—Serrate early York, Large Early York, Crawford's Early, Ward's Late Free. *Cherries*—Governor Wood, Mayduke, Downer's Red, Belle Magnifique. *Nectarines*—Early Violet, Elruge, Downton, and Boston, (the last for *show.*) *Apricots*—Breda, Moorpark, Golden.

As a *general* rule, the best soil is any one that has a dry or well drained bottom, and is fertile enough to raise good corn and potatoes. But it must be kept clean and mellow by cultivation. The American Fruit Culturist will furnish the necessary information on fruits; and Buist's Family Kitchen Gardener, on vegetables.

Budding Peaches.—A word of information through the Cultivator; when is the best time for inoculating peach Trees? Geo. H. Larison. *Sergentsville, N. J.*

The latter part of summer and early part of autumn, while the stocks are yet growing thriftily, and will peel well, and also after the buds have become sufficiently hardened and matured for the success of the operation.

To Destroy Lice on Apple Trees.

Mr. Tucker:—I have just read a communication from Asa Fitch, in answer to a letter from Wm. Gilchrist, published in your paper of July 19, on the Apple Plant Louse. I have for several years been much troubled in a nursery and young orchard, by an insect which must be the same described by them.

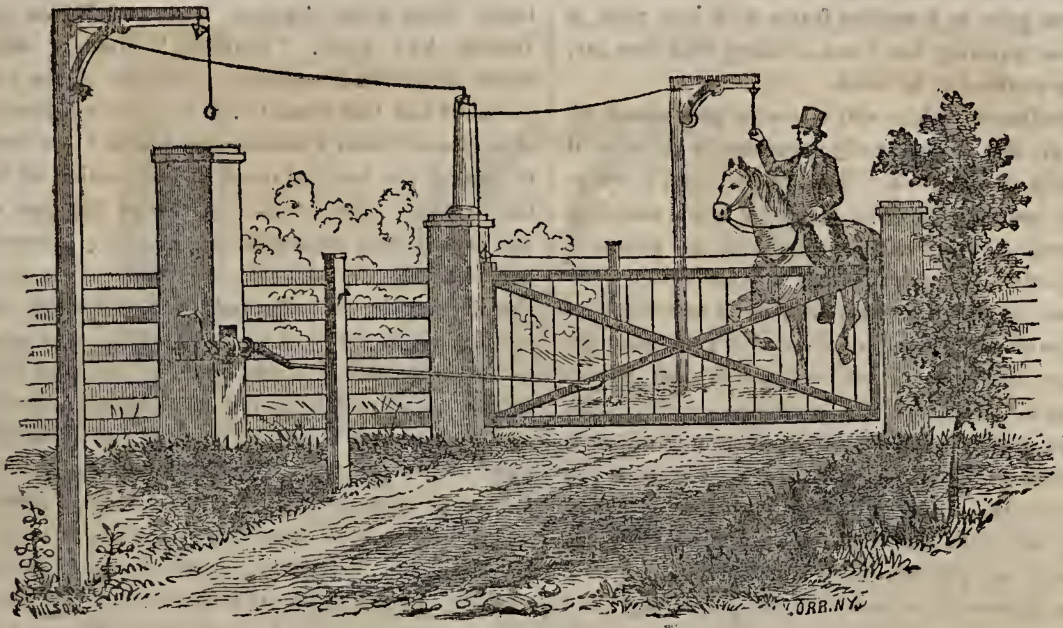
My first experience was about six years ago, in a nursery of about 1200 apple trees, which became so infested with them that the trees turned mostly black, and the leaves withered and died. The ants accompanied them in countless numbers.

I tried various remedies, needless to mention, as they did no good. At last I took 4 or 5 pounds of tobacco, chopped it up, boiled it, and pressed out the juice, making a strong decoction. I then took a large tin pan, and with the help of an assistant to hold the pan, I bent over the trees and immersed the trees and branches infested in the tobacco water. It completely destroyed the insects, and the ants did not appear to be at all pleased with the babtism.

Many of my trees had become so bad, that the leaves dropped off. After the application of the tobacco water, the trees leaved out again and grew finely.

Since then I have had to resort to the same remedy more or less every year, both in a nursery and young orchard, and have ever found it effectual when the tobacco water was made strong enough.

As the trees grow older, I find they are not so likely to be infested with them. Moses L. Colton. *West Bolton, Vt., July 23, 1855.*



Winegar's Automaton Gate.

A rather annoying inconvenience has been long felt by carriage drivers and equestrians in passing gates, from the necessity of alighting to open them. This has led to various contrivances to obviate the difficulty. Most of these have proved failures, or they have required so much work and pulling for swinging the gate open, as to be little or no better than the simple old-fashioned process of jumping down and doing it directly by hand. In England, the large gentleman farmer, who in his daily rounds is compelled to pass many gates, has a horse trained on purpose that shall allow him to open the gate easily on horseback; and the resident on a large estate builds a costly porter's lodge, and employs a person by the year to watch the entrance and open when needed.

We have lately witnessed the successful operation of a simple contrivance, effected by C. Winegar, Esq., of Union Springs, N. Y., that obviates all these difficulties, at a permanent cost not exceeding ten or twenty dollars, and that enables the horseman or carriage driver to open and shut the gate without stopping, with as much ease as he could ring a door bell, and which a child five years old might easily perform. We passed repeatedly through a gate of this kind, for some months in successful operation on the grounds of Wm. H. Chase, of Union Springs, without stopping the vehicle, either for opening the gate or for closing it after us. The only labor required is to wind up a weight by means of a windlass, which a boy ten years old performs, once for about *fifty* motions of the gate.

This contrivance, not unlike a clock, consists of two principal parts, the *running*, and *regulating* parts. The weight which opens and shuts the gate, is contained in a tall box, seen on the left side of the figure, and resembling in external appearance a large post. The weight in descending, turns a crank. A rod placed between this crank and the gate, and connected to each, receives by this means a reciprocating motion, and would open and shut the gate in rapid succession until the weight reaches the ground, were its motion not controlled by the latch which fastens it shut when it strikes the post, or which fastens it open, as soon as it reaches the smaller post placed at the proper point for this purpose.

The opening and shutting is effected from the carriage or saddle by simply giving a slight pull or jerk on the loop suspended from the arm of the tall post, a short distance from the gate. A wire, extending from this loop to the hinge-post, and thence across the top of the gate to the latch, instantly sets it free whenever a slight pull is given, and the crank and rod immediately draw it open, where it is retained by the latch. On passing through, the loop is pulled on the other side, loosening the latch again, and causing the gate immediately to close.

By placing the two tall posts with the loops, sufficiently distant from the gate, the opening may be accomplished at any desired time before arriving there, an increased length of the wire being all that is required.

This ingenious piece of mechanism was the result of necessity. The inventor, C. Winegar, whose residence is a short distance back from the road, the entrance being at a steep inclination, found it difficult to induce his horses to stand while the gate was opened in the usual way. He was therefore led to adopt this new contrivance to obviate the necessity of stopping. He has, since our cut was engraved, adopted a neater arrangement for the wire work, which is placed *under ground*, connected as formerly to the gate-latch at one end, and being supported by a low post at the other, where there is a horizontal lever for giving motion to the wire, and which is merely touched with the the hand in passing, for throwing the gate open or closing it.

He also finds a decided benefit from attaching a *fan wheel* to the crank, for lessening momentum; at the same time that any degree of power may be given to the mechanism. This is more especially needed where a large or heavy gate is employed. In all other cases a light iron gate, or a wooden frame with iron rails, is the best, as requiring less force, striking with less jar, and being unaffected by wind.

As an ordinary weight will move the gate about fifty times, all that is commonly necessary is to wind it up regularly once a week. In extreme cases, a workman, who goes regularly to his work each morning, may be employed to rasie the weight as he passes,—requiring only a few seconds.

Such an invention as this is destined to become of great value on all large plantations, which the manager must superintend on horseback; and it must be especially so in England. We hope our cousins there will not do as they have done with some other American inventions, endeavor kindly to relieve us from the claim to its originality—or prove it was introduced here from England, (like McCormick's Reaper and Wood's Cast plow,)—or perhaps show conclusively, as they have done in some instances, that our old neighbor and friend Winegar was after all born and brought up on the other side of the wave. England has quite enough to be proud of, without such small drafts upon the Yankees.

Rye and Barley for Winter Pasturage.

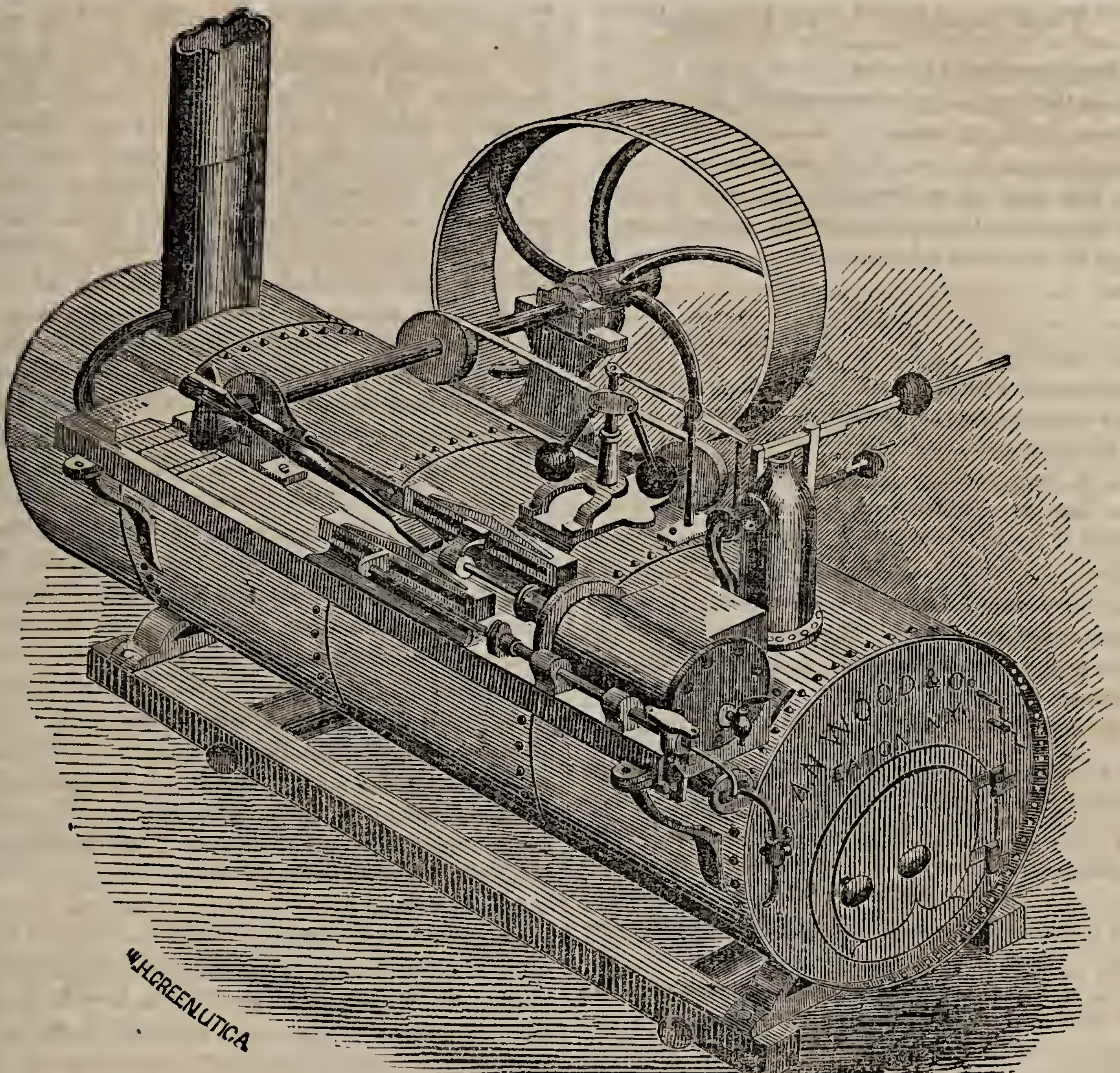
Living in about the same latitude as your correspondent in Texas who is desirous of knowing the qualities of Rye and Barley for winter pasturage, and having had some experience in winter pasturage, I will give him the result, hoping it may have the effect to induce further experiments among some of your numerous readers in this section.

I have ascertained from experiments that September and October is the best season for sowing rye and barley for winter pasturage. And if sown on rich soil it will be suitable for pasturing in January, and can be constantly pastured until April or May, when it becomes tough, and shows a tendency to go to seed. It should then be turned under with a large plow 8 or 10 inches deep and the land will be in a good condition for a summer crop. If the rye is left to go to seed the straw is of but little value and it is not liked by stock, and has but little nutriment. As regards the comparative value of rye and barley, rye has the preference, being more tender and nutritious. Barley has the advantage of a more rapid growth at first, but it decays earlier and does not grow as rapidly as the rye after having been fed off, and the rye is preferred by stock.

I had a few years since, a field of rye and one of barley adjoining. The enclosure was open so that the stock could feed in both or either, and I found they ate the rye off close to the ground whilst the barley was from 6 to 8 inches high. I also tried the experiment of keeping a milch cow for a week on the different pastures, and I found the week's pasture on the rye had the preference both in quantity and quality of milk and butter, since which time I have abandoned the barley pasture and only sown rye. I have also been experimenting with several of the northern varieties of grasses, such as Timothy, Orchard grass, Kentucky Blue grass, Lucern, Red and White clover, Italian Rye grass, "Iverson's" Rescue, and the South American Evergreen. The seed of the latter I procured last fall from Dr. N. B. Cloud, editor of the *American Cotton Planter*, and which I am inclined to think is the best adapted to our section of any of the varieties I have tried. Although the past winter has been a very unpropitious season for grasses, having been very dry and cold, still this variety has continued to grow, and afforded good pasturage all the spring, and is still looking well, having now commenced to go to seed. I intend saving all the seed I can for further experiments this fall. My experiments with red and white clover have also been very satisfactory, and have convinced me that, with the use of proper fertilizers, and care in preparing the ground, we can grow as fine crops of red clover here as in any other part of the Union. I sowed my clover about the first of November last, which, by the by, is about one month or six weeks too late. I have pastured it since February, until within about one month since, and it is now from eight to ten inches high, and in bloom; but to get a good stand of clover for a *permanent* winter pasture, it should not be pastured the first year. I am also cultivating a native summer grass I found in my garden, and intend saving the seed. I have just measured a stalk of it, which measures 4 feet 8 inches, and is very tender and juicy, and I am inclined to think it a superior summer grass.

I am convinced from my observations and experiments, that, with the proper fertilizers and cultivation, ours is the great grass-growing section of the United States, and if the eastern people who have for years past furnished this section with hay, could make one-half the quantity to the acre that we can from our native grasses, they would have made fortunes by the traffic; but the high price the eastern hay has commanded here the past few years, has directed the attention of a few to the cultivation of the different varieties of foreign and native grasses, and I hope the result of these experiments will prove so favorable that in a few years such an article as eastern hay will not be found or known in our markets. P. B. Pomeroy. *Mobile, June* 25, 1855

Boston Veterinary Institute.—We have received a "Prospectus and Regulations of the Boston Veterinary Institute, incorporated by the Legislature of Massachusetts, May 2, 1855," and rejoice exceedingly that there is at last some prospect of an institution in this country where young men can prepare themselves for the practice of veterinary medicine and surgery. The first session of the Institution will commence the first Monday of November 1855, and continues four months. Courses of lectures will be delivered on the Anatomy and Physiology of the Horse, by G. H. Dadd; on the theory and practice of veterinary medicine and surgery by C. M. Hood; and on Cattle Pathology by Robert Hood. Students can also attend, without extra charge, courses of lectures on Pathological Anatomy and Chemistry, by Professors Jackson and Cook. Tickets to the full course of lectures $75. Full particulars can be obtained by addressing Dr. Geo. H. Dadd, Boston.


A. M. WOOD & Co.
EATON N.Y.
W.H.GREEN.UTICA

PORTABLE STEAM ENGINE FOR FARM PURPOSES.

Steam Power for Threshing and other Farm Work

LUTHER TUCKER—In reply to the inquiry of H. in a late No. of the *Country Gentleman*, permit me to occupy a limited space in your excellent paper. I am aware that his inquiry is the exponent of the same necessity felt by a very large number of the more thrifty class of farmers, for some motive power less expensive and more efficient than horse power, for driving the various machines now so generally used by them. The high prices of feed for teams as well as man, has this year especialy impressed all with the necessity of curtailing as much as possible team labor, and all turn involuntarily to steam as a substitute, and judging from the few, yet successful, trials thus far made, little doubt can exist that upon farms where two or three teams are now needed, a steam engine will take the place of one of them at least, within a few years.

I have no personal knowledge of but one engine being used in this country for threshing Last fall Mr. R. WEAVER of Nelson, in this county, used a portable engine of four horse power, to drive a traveling threshing machine, and cleaner—that is, he went from farm to farm, doing his neighbor's threshing, as has been the custom with horse powers, and I am informed on good authority that it worked to his entire approbation, there being but one trouble—there was not grain enough in the vicinity to give him full employment. At the Madison Co. Fair, held in this village in 1852 Messrs A. M. WOOD & Co. of Eaton, Madison Co., had on exhibition a portable engine, of four horse power, designed for farm purposes; it was run attached to an ordinary threshing machine, which it drove to the satisfaction of the judges and spectators, but this being principally a dairy region, less necessity for steam power has existed than in grain growing districts, and none except the one referred to, has, to my knowledge, been put in operation.

The Messrs. Woods still manufacture and have constantly on hand this class of engine. The price for three horse power is $275, four horse power $340, six horse $510.

This, I believe answers the inquiries of your correspondent, and permit me to add, that upon a farm or plantation, threshing is but one of many kinds of business that may be done with this little engine. It is equally adapted to a fan mill, corn sheller, cotton gin, clover huller, corn mill, corn stalk and straw cutter, grind stone, churn, wood saw, steaming fodder, and in short to any kind of work to which stationary power is applied. By an ingenious arrangement—discharging the escape steam into the smoke pipe, the sparks from the fire are so perfectly extinguished as to render it perfectly safe about a barn in the dryest time. At the trial at the county fair referred to, a bundle of straw was attached to the top of the smoke pipe all day, and at night was wet with condensed steam. A four-horse power will require less than one-fourth of a cord to run it ten hours. GURDON EVANS. *Eaton, N. Y.*

Food Consumed by an Elephant.

Some time since we copied a short article that was "going the rounds" in reference to P. T. Barnum's farm-elephant, requesting Mr. B. to give us the particulars in regard to his weight, consumption of food, &c. Our excellent contemporary, the *New England Farmer*, copied the article, in which paper it met the eye of Mr. Barnum who immediately replied as follows.

Bridgeport, Ct., July 7, 1855.

Editor of New England Farmer:—*Sir*,—In answer to your inquiry in regard to the diet and weight of my working elephant I would state that he eats on an average one bushel of oats and one hundred pounds of hay per day, Sundays and all! His weight is 4700 pounds. He will accomplish any kind of work set before him, and uses ten times better judgment than three-fourths of the "help" which I am obliged to employ on my farm. Above all things, he is not an *eye*-servant. Once set him at work piling wood, picking upstones, or any thing else, and you can leave him without fear of his playing "old soldier" in your absence. Another capital negative quality is, that he don't pick up his duds and start for home exactly at six o'clock in the afternoon, as many other farmers' "assistants" do. He is willing to labor till sundown, and even later, if work is pressing. On the whole, he is a very honorable, industrious, intelligent and well-behaved farmer; nevertheless, I cannot conscientiously recommend elephants as the *cheapest* workers on a farm. They cannot work in cold weather and of course would eat themselves up, trunk and all in a single winter.

Truly yours, P. T. Barnum.

P. S.—Do let me improve this opportunity to caution my brother farmers against "believing all they read in the papers." About planting time I read in a newspaper that a sure preventive of the potato rot was to soak the seed potatoes in water with an ounce of sulphate of copper to the gallon. I tried it, and it *did* prevent mine from rotting and from *chitting!* After they had been two weeks in the ground my man dug them up, and found them sound inside, but as dry and hard as a bone on the outside, with not the slightest prospect of their ever exhibiting any natural signs of life. They were perfectly "copper fastened!" Luckily I only experimented on a small portion of my potatoes, and discovered the joke in time to remedy it by planting potatoes in their natural state. P. T. B.

The principal object of our inquiry was to ascertain what quantity of food the elephant consumed in proportion to his live weight, in order to see how it compared with the quantity consumed by cattle, horses, sheep, &c. It has been said that "a very large ox or cow, relatively to its weight, requires less food than an animal of smaller dimensions;" and it would seem reasonable to suppose that such is the case, seeing that there would probably be less vitality and involuntary functional activity, or, to use a phrenological term, less *mentality, in proportion to live weight*, than in the small animal. If there were any truth in the idea, one would think an elephant weighing as much as 50 good sized sheep, or 5 heavy horses, would consume much less food in proportion to his weight than any other of our domestic animals. This does not appear to be the case in any marked degree, as the following facts will show.

In Boussingault's experiments, the average daily consumption of 17 horses and mares, aged from 5 to 12 years and weighing on an average 1070 lbs. was 33 lbs. of hay each, per day, equal to 3.08 lbs. of hay per day to each 100 lbs. of live weight. His milch cows, weighing on an average 1466 lbs., are also allowed 33 lbs. of hay per head, per day. This gives to each 100 lbs. of live weight 2.25 lbs. of hay per day.

As might be expected Boussingault found that 14 growing animals, from 5 to 20 months old, required more food, or 100 lbs. live weight required 3.08 lbs. of hay per day.

Boussingault estimates from his experiments, that pigs consume an equivalent of hay per day equal to 3 per cent of their live weight. Sheep, too, require about the same amount.

In some experiments made in consequence of premiums offered by the Worcester County (Mass.) Ag. Society on the economy of cutting food for stock, a pair of working oxen belonging to A. H. Hawes, and kept at moderate work weighing 3134 lbs, consumed 75.2 lbs of hay per day; or 100 lbs live weight consumed 2.4 lbs of hay per day. A pair of steers, belonging to Harvey Dodge, weighing 2220 lbs., consumed 51.2 lbs. of hay per day, equal 2.84 per cent live weight. Two dry cows belonging to C. B. Demond, and weighing 1784 lbs, consumed 43.5 lbs. of hay per day or 2.42 per cent of their live weight. Two *milch* cows, belonging to W. S. Lincoln, weighing 1800 lbs. consumed 43·2 lbs. of hay per day, equal 2.4 per cent of live weight.

Mr. Barnum's elephant, weighing 4700 lbs. consumes 100 lbs. of hay and a bushel of oats per day; 100 lbs. live weight, therefore, consume 2.12 lbs of hay and 0.68 lbs. of oats per day, or, estimating, as Boussingault does, that 68 lbs. of oats are equal to 100 lbs. of hay, the elephant consumes 3.12 lbs. of hay per day for each 100 lbs. live weight. To recapitulate therefore, 100 lbs live weight of animal requires of hay per day, in

Working horses,	3.08
Working oxen,	2.40
Milch cows, (Boussingalt's)	2.25
Do Do (Lincoln's)	2.40
Young, growing cattle,	3.08
Steers,	2.84
Dry cows,	2.42
Pigs (estimated,)	3.00
Sheep,	3.00
Elephant,	3.12

There is considerable difference in these figures, but certainly not as much as might be expected from such various animals. The elephant consumes the most, the working horses and young cattle the next highest amount, then the sheep and pigs, and what is surprising the large *milch* cows of Boussingault consumes least of all. Working oxen would appear to consume less than horses. On the whole, these figures give little indication that large animals consume less in proportion to their weight than smaller ones.

* * *

Vinegar from Watermelons.—A correspondent of the *Michigan Farmer*, scraped off the pulp of watermelons, strained it through a thick cloth, and boiled it down one half, or as old cider boilers say, two to one, put it in a cask and in three weeks "had most excellent vinegar," which "continued to improve with age."

The Apple Borer.

Several of our correspondents have recently inquired for a remedy for the apple borer. We cannot perhaps give a better answer than by describing the recent experiments of David Thomas, of Union Springs, N. Y., with this troublesome depredator.

Last autumn he came into possession of a young orchard of about a dozen trees, each four or five inches in diameter. They had been much neglected, and were so infested with borers that he thinks not one of them would have survived a year without prompt attention. The presence of the borer is indicated by the orange colored, sawdust like excretions thrown out from the holes near the surface of the ground, and the first thing was to find their entrance. This was in most cases easily accomplished by scraping all the pith thus thrown out away from the bark, and where necessary removing the earth away from the tree till the roots branch and separate from each other. As soon as the holes are found a flexible twig is thrust into it, and worked up and down till it reaches the grub, which is at once known by the peculiar *crush* it occasions. A twig the eighth of an inch in diameter, and four or five inches long is commonly quite sufficient Sometimes the holes are larger and more tortuous, so that it may become necessary to cut away a portion of the bark to obtain access, in which case care is taken to cut longitudinally or lengthwise with the tree, so as to occasion as little injury as possible. It is necessary to pass round several times during the season in these examinations, as new holes will often become visible that were not at first discovered.

By this treatment all the trees we have mentioned have been restored to a sound healthy condition, with the exception of one that was so far gone that it could not be recovered.

When the trees are taken at an early period in the attack, the removal and destruction of the insects are very easy, as much so as that of the peach grub, the borer not immediately cutting deep into the wood of the tree.

No remedy by way of prevention has been found equal to the application of urine about the roots,—about a pint or less for small trees, and two or three quarts for quite large ones, the application being made about once a fortnight.

The Plum on Peach Stocks, &c.

I have met with very little success in budding the Plum on its own kind of stock, while I have found it to take readily on the Peach, but they do not live long. Will you please inform me through the Country Gentleman, what variety (if any) will succeed permanently on the peach, and if it is necessary or politic to transplant it deeper in order to induce it to root from the Plum. C. R. C. *Galesburgh, Mich.*

The peach was formerly used to a considerable extent as a stock for the plum on light soils, where the plum stock does not succeed well. The practice is now, we believe, discarded by all good nurserymen, on account of its *uncertainty*. *Some* varieties, *sometimes* do well, treated in this way, among which are the Imperial Gage, Yellow Gage, and some other sorts with long shoots ; we have known trees of a large Yellow plum called Peters' Yellow Gage, more than twelve years old, still flourishing, and a tree of the Imperial gage six inches in diameter, bearing profusely. A much better stock is the wild American plum (*prunus americana*) when the largest and strongest varieties are selected, the stock being worked at the surface of the ground or close to the roots.

Transplanting any kind of fruit trees deep, with the intention of their rooting, is generally quite futile, and especially so with plums. Many cultivators seem not to be aware that it is next to impossible for young and delicate rootlets to find their way through old, hard, and thick bark. Generally they are not to be looked for except from the young, soft shoots of the present season's growth.

Re-grafting old Trees.

I am about to commence the business of an orchardist, in a neighborhood where there are a great number of old and neglected apple and pear trees. I wish to undertake to bring these back to their full capacity of bearing. My experience tells me it will be a profitable thing to farmers to have even their oldest trees invigorated, if done at a moderate cost ; but whether it will pay them to have new heads put on to such old stocks as some of them have, I cannot from my experience say. You will therefore oblige me by giving your opinion as a guide to them and me, and also state what you think would be a fair remuneration (these times) for the different branches of an orchardist's business, viz., grafting, budding, pruning, &c. W. Dodson. *Nova Scotia.*

A skilful and *reliable* orchardist, in a neighborhood where there are many ungrafted trees, would be a public benefactor. The compensation, per day, should be about the same as that of a skilful carpenter or other superior mechanic. The compensation by the *job* would depend upon circumstances—a good profit has been made at two or three dollars per hundred living grafts, besides the necessary pruning, where several journeymen grafters are employed. But it is of the utmost consequence that the grafts be not only genuine, but of the most profitable sorts. Very few grafters attend properly to this point, and many are great impostors.

Productive Sheep.—Mr. Wm. Graham, North Bay, Oneida Co., informs us that he kept 14 ewes last winter—two of them produced three lambs each—eight produced twins, and three one each, making 25 lambs from 13 ewes—20 of which, by care and watchfulness during the lambing season, he succeeded in raising.

Short-Horns for Ohio.—The *North British Agriculturist* states that Mr. Douglas of Athelstaneford, has shipped to the Society of Shakers of Union Village, Ohio, one bull and three heifers of the short horn breed. " The bull Capt. Baleo has been successful in gaining several prizes, and the heifers are descended from the most fashionable blood. We understand that the price of the bull was £520 ($2016) and that none of the heifers were under £100."

Corn, Turnips and Pumpkins.

Messrs. Editors—I have succeeded in growing turnips among corn, and think it an economical way of producing them. Pumpkins have at the same time been grown to a moderate extent, without any perceptible detriment to either of the other crops. My mode is to select a piece of ground for corn which has lain to clover and grass for two or three years. On this is hauled thirty loads of barn-yard manure to the acre—three-fourths of a cord to the load, which is as evenly spread as an Englishman knows how to do it—plowed in the spring as soon as the ground has become suitable, eight inches deep, and twelve inches wide, which disposes of it to correspond with my views of plowing. Then drag lengthwise of the furrow, with a fine drag. It is now prepared to mark and plant. About the fifteenth of May is my usual time of planting, which is done at right angles four and a quarter feet apart each way, from five to seven kernels in a hill, of the yellow dent variety. It is preferable to pull out than to plant in. Three or four stalks is sufficient to grow. Soon as through planting, seventy-five pounds of plaster is sown broadcast to the acre, and when the corn is up, two pumpkin seeds are stuck in every fourth hill. This time and mode of planting them, is to secure evenness, and to prevent the vines from interfering with the last time of cultivating the corn. It is indispensable to cultivate and hoe sufficiently to eradicate all grass and weeds, as corn, pumpkins and turnips delight in a clean rich soil.

About the first of July and previous to the last time of cultivating, I sow one third of a pound of turnip seed to the acre. The white globe and yellow Scotch (globe shaped) are the best varieties—the former to be fed first, as the latter will keep sound until spring, and are more nutritious.

When gathered, great care will be necessary to keep them from heating and freezing, which in my opinion, is the great draw back to the successful culture of roots as food for stock in this country. One hundred and twenty-five bushels have been an average yield per acre, for the last five years, which is mostly clear gain as they have invariably been consumed on the premises, and again find their way to the land from the augmented manure heap; at the same time the corn does not appear the least harmed by their growth. The turnip grows mostly after the corn is cut up, which should be done as early as practicable. The pumpkins are out of the way when the corn is cut; thus they continue to grow until freezing weather sets in. Gathering them is deferred until the last of November, when they are pulled and thrown in heaps; the tops cut off, and put on them. In this situation they will resist the frosts of the season, while the tops and small turnips can be preserved for the cattle, which have been found of great addition to the forage crops.

Last year, I raised from nine acres, twelve hundred bushels of turnips and five hundred bushels of corn, and fifteen loads of pumpkins, being the second year to the same kind of crops. The turnips were much the best the last year. The corn was not so good, nor the pumpkins, as the year previous, which may be safely attributed to the unfavorable season for corn and pumpkins, on account of the protracted drouth which lasted from the first of July to the first of September. It should be borne in mind that high manuring is an essential element in producing favorable results, and whether proper facilities are within the reach of all to follow the practice is a question for themselves to settle. In my opinion it is the philosopher's stone in successful husbandry, and the barn-yard the only legitimate source on which we can with certainty rely, as it is fair to presume that domestic animals are kept on every farm sufficient to consume the coarse forage, a portion of the grain, and all of the roots; indeed without them, no system of rotation can be practiced, at the same time preserving the fertility of the soil. J. S.

Ypsilanti, Mich.

Paint for Barns.

G. W. Philip, of Greene County, wishes to know of a paint with a suitable color, for his newly erected barns—Venetian Red, Spanish Brown, and French Yellow, and the Ohio paints, all being too dark—and lead and zinc being too light.

The *Brandon paints*, manufactured and sold by the Brandon Iron and Car-wheel company, have been highly recommended for their cheapness and durability, but we have never tried them, and cannot speak from personal knowledge. They are probably too dark for our correspondent, but this quality may be reduced to any desired degree by mixing with zinc-white.

The following mixtures are given in Wheeler's new and useful work, entitled "Homes for the People," from which some valuable hints may be derived in forming desirable tints:—

A cool grey, similar to what would be the tint of unpainted timber after a few years may be obtained as follows:

Indian Red, half a pound;
Lamp Black, three ounces;
Raw Umber, half a pound, mixed with one hundred pounds of White Lead.

This color will be changed by the addition of sand, which in all cases is recommended, in a proportion of about one quart to every one hundred pounds of mixed color. The finest and whitest sand that the neighborhood affords should be used, and as its hue differs so will the tint of the paint be changed.

This color, with one-third less white, is very suitable for roofs, and is a cool, unreflecting grey tint of great softness and beauty.

Cream color. No. 1.—A soft pleasant tint like that of coffee greatly diluted with milk, is oftentimes well adapted to a building, particularly in regions where red sand stone or other similar objects, with such local coloring, give a brown hue to portions of the landscape. It may be mixed as follows:

Yellow Ochre, five pounds;
Burnt Umber, half a pound;
Indian Red, quarter of a pound;
Chrome Yellow, No. 1, half a pound, with one hundred pounds of White Lead.

The key notes in this color are the Indian Red and the Chrome Yellow, and the tone may be brightened or lowered by more or less of either, as individual taste may prefer.

No. 2—A still more delicate tint, resembling the pure color of the Caen stone, and well adapted for a large building with many beaks of outlines, may be mixed thus:

Yellow Ochre, two pounds;
Vandyke Brown, quarter of a pound;
Indian Red, quarter of a pound;
Chrome Yellow, No. 1, half a pound to every one hundred pounds of Lead.

Inquiries and Answers.

Nitrate of Soda.—*M. Dodson.*—We do not know where this fertilizer can be obtained in this country. In London it is sold at 3¾ cent per lb. or $75 per ton. At this price it is probably a cheaper source of nitrogen than Peruvian guano. We believe it is kept for sale in New York and Philadelphia. The parties would do well to advertise.

Cultivation of Willows.—*L. A. Beardsly, South Edmeston, N. Y.*—We believe there is a good market for willows in New York and in all our large cities. J. H. Corning, Valatie, N. Y., will be able to furnish the information you desire.

W.—Hay Caps, for protecting hay-cocks from rain, are made easily, (according to E. Clarke, in the N. Y. Times,) of wide, coarse, cheap, unbleached sheeting, (say 42 inches wide,) cut square. Larger, they would too much exclude the air. A gallon of linseed oil, simmered with 4 lbs. beeswax, and a quart of japan added after removal from the fire, will spread over 40 caps, and may be applied with a shingle like soft butter. Then sew into each corner, a half pound stone, to hold them down, and they are done. No hemming is required—the wax holding the edges.

These are cheap and lasting, and soon pay their cost.

Plums.—*G. B., Plainfield, Mass.* No doubt the reason of the young plums dropping from the trees, is the punctures of the curculio. As we have repeatedly published directions for the destruction of this insect, we will briefly remark here that they may be destroyed by passing around among the trees *every* morning (and evening too, would be still better,) spreading white sheets under the trees, and then jarring the insects down by a blow from an axe or mallet. The insects look like a dried plum blossom, are about as large as a hemp-seed, and are distinguished by a sort of beak. They make a crescent-like incision, deposit their eggs, there, which hatch and make a grub or worm which spoils the fruit, and causes it to drop. A *sharp* blow is necessary to cause the insects *all* to drop, and the *sawed stump* of a branch is best to strike against, to prevent bruising the bark. The insects are quickly destroyed with a pinch of the thumb and finger. The work must be commenced early, as soon as the young fruit forms. Pigs and geese, turned among the trees, by eating the wormy fruit, are a great help, and often sufficient alone to save the crop the next year.

Preserving Fresh Fruits.—We must refer our correspondent, D D., who inquires for full directions for "all the details, from the gathering the fruit to the final sealing up" in *Arthur's patent self sealing Fruit Cans*, to the inventor himself, as we do no possess with sufficient accuracy the desired information; and we should be glad to publish for the benefit of our readers, the necessary directions.

J. M. H, Warrenton, Ga. We know of no digging machine that would be likely to be of much service in either a stony field or one in which there are many "large stumps and trees with large roots." The fact is, digging by machinery is yet in its infancy, and it can hardly be said that we have any thoroughly tested "digging machine" for the smoothest and lightest of land, to say nothing of that which is rough, hard and stony.

Issac Beach, New Baltimore. You may use "four to eight quarts of salt to a ton of hay," in stacking it, without fear of "injuring the cattle" eating it. In fact it will greatly improve hay "stacked in a damaged condition." A bushel to the ton would certainly prove injurious; half a bushel is altogether too much.

Hungarian Spring Wheat from the Patent Office.—In the distribution of seeds from the Patent Office last spring I received a paper containing a fine sample of wheat called Hungarian Spring Wheat, I planted it the same day, by the side of the Tea Wheat, the latter is in blossom, the former has not shown a joint, which leads me to think it to be winter wheat. Does all the wheat sent out under that name prove to be the same. F. M. Cowee. *Berlin, Ren. Co.*

Treatment of Injured Meadows.—We have had two dry seasons, especially last year, which, together with the ice of last winter, and our exceedingly dry spring, and perhaps the grub worm, have rendered our meadows almost worthless as compared with former years. Acres and acres of our low land, in patches here and there, are entirely killed out, while hundreds of acres are almost entirely destitute of Timothy or herds-grass, where formerly it has constituted a fair share of the crop. Our hay crop must consequently be very light again this season, except new seeded land which is some better. Now what can be done for these meadows to restore them to their former productiveness? Will harrowing in the fall, and sowing grass seed and rolling down restore those portions which have been plowed, or must we plow again. And what can be done for those lower portions which were never plowed. Will harrowing and sowing seed in the fall pay and what seeds will be best? An answer to these inquiries or any information upon these points will be thankfully received by at least one of the readers of your valuable paper. What is the best method of destroying white daisies? G. A. H. *Potsdam, St. Law. Co, N. Y.*

Will some of our experienced correspondents answer the above inquiries?

Clover Hullers,—I see in the *Country Gentleman*, of 12th ult., an inquiry respecting clover hulling machines. The original inventor of the machine most in use in Central N. Y.. lives in this place, and the machines manufactured at Waterloo, Lyons, &c., are of his plan. I am requested to say that any information respecting them, sizes, prices, &c., can be obtained by addressing J. V. Blackwell, Ovid, N. Y. He is the original patentee, and his machines are warranted to hill from 3 to 5 or even more bushels per hour, and can be driven by horse, water, or steam power.

All of the above manufacture I understand, do not construct machines to run by water power, but the best ones can be ascertained by inquiring as above Wm. H. Brewer.

Apple Disease in Western Pennsylvania.—The following extract from a letter of Thomas Matteson, of Keating, McKean Co., Pa., gives a description of the disease which affects the apple crop in that region, which is worthy the attention of pomologists and fruit cultivators generally:—"This disease has affected our fruit trees for five or six years—apples fall from the tree a little before the usual time. Winter fruit that has become diseased, quickly rots, and some lose nearly all their flavor and become insipid. Grafts set in the tops of large trees are soonest affected; and in all cases young and thrifty shoots are most liable to the disease. The leaves dry up, the ends of the limbs die, and the fruit is smaller than usual, and is subject to black spots."

Lightning Rods.—Can you or any of your subscribers inform me as to the best mode of fixing lightning rods, where the rock is within eighteen inches of the surface of the ground? Or whether is it necessary, to have more points than one on each rod? A Subscriber.

Most kinds of rock are poor conductors of electricity, and therefore it will be advisable to extend the rod sufficiently to enter a stream or body of water, or a permanently moist stratum, the facilities for doing which, our correspondent can only judge with the knowledge of local particulars.

It is better to have several points—not pointing to different parts of the sky, as is often seen, for *direction* has little to do in the matter,—but all as near together as a convenient form may require. By dividing the charge, should any occur, each point is not so nearly filled with the fluid and consequently is not taxed so near the extent of its capacity. There will therefore be less danger of a single point being melted, as we have known to take place; and more probability that the whole charge, and not a part only will be carried off in the rod.

Potato Bug—I wish through you to make inquiries which may, perhaps, (if satisfactorily answered,) be a great benefit to many of your readers. What will destroy the potato bug, or prevent its ravages upon the Irish potato? We have in this country a small bug or fly about the size and very much like the fire-fly or lightning bug, striped on the back; that commences its destructive work about the first of June, and in a few days if left alone will trim the stalks perfectly bare of leaves. They come in perfect swarms, are very shy, can be brushed out of the patch, but return immediately. When mashed upon the skin they produce a blister as soon and as effectually as Cantharides. I have tried a strong decoction of tobacco, and of lime sprinkled upon the vine, but to no purpose. I never knew them in the North, and here only for a few years past.

What is the price of J. J. Thomas' work on Farm Implements? [We can send it to you, post-paid, for $1.—Eds.] S. W. Haughton.

A Troublesome Weed.—Herewith I send a stalk of a weed, with which we are making a very disagreeable acquaintance in this vicinity. It thoroughly eradicates the cultivated grasses, and its roots take a strong hold. Some farms in this town are thoroughly overrun with it, and their owners inform me that plowing seems rather to increase the pest. I am not aware that any of our domestic animals eat it. The blossom is yellow with leaves about ½ the size of St. Johnswort blossoms.

Can you inform your subscribers here what the weed is, and what course they shall adopt to rid their farms of it. S. A. Law.

We do not recognize the weed. Try what effect frequent mowings have on it. *Thorough cultivation* with corn for two years in succession, will probably eradicate it.

Soiling.—What is the best grass for high dry gravelly soil,—rye, clover, grass or turnips? Judge Buel said turnips would grow any where. We must have something to feed our stock on during the hot dry weather. What is best? E. Parkes. *Coffee Landing, Hardin Co., Tennesee.*

Our favorite crop of early autumn soiling, is corn sown in thick drills, three bushels per acre—as we have already described on various occasions. Clover does well on gravelly soil. Turnips will grow on almost any soil, provided it is *very rich*—on poor soils, the attempt is a waste of seed.

Cider Mills.—In answer to several inquiries, we would state that we are not sufficiently accquainted with the operations of these machines, to enable us to decide as to which is the best.

Wens on Cattle.—*J. C. Wygant.* In our last volume a correspondent states that he cured a wen the size of a hen's egg, on the upper jaw of a three year old steer, by extracting an ulcerated tooth, that was the cause of it. The wen disappeared in about four months after extracting the tooth. Another correspondent has cured very bad ones in six weeks by rubbiug them with a mixture of fine salt and tar.

Preserving Eggs.—Will you inform me how long eggs will keep this warm weather when unprotected, and how long when protected. What is the best method of protecting or preserving them. Also what is the best method of packing them for transportation. G. *Utica, N. Y.*

Will some of our experienced correspondents answer the above.

Steam Plow and Steam Horse.

Our correspondent, Mr. S. W. Johnson, has furnished us a very interesting account of the Farm Implements and Machines on exhibition at the Show of the English Royal Ag. Society held at Carlisle in July, which has been published at length in the Country Gentleman. From this account, we give the following extract, describing two machines entered for the $1000 prize offered for an invention best adapted for cultivating by steam:

I believe but two instruments have been entered, that look like competitors for the $1000 prize. One of these, *Usher's Steam Plow*, was to work on the principle of forcing a number of plowshares into the ground in such a manner that they should mostly propel the machine by their action in the soil, the plows themselves being worked by a steam engine, and arranged on a revolving drum or shaft. It is certainly a formidable looking engine, but don't deserve any special notice until it gets upon the trial ground. It only made a few rods progress yesterday, and at 3 P. M. to-day, had not got further though the steam was up. This without help of the plows which remain lifted from the ground. The engine is poorly constructed, or at least badly managed. On one occasion when attempting to get it out of the Implement Yard, the steam was apparently let on too suddenly, and one end reared up perceptibly from the ground, much to the amusement of the spectators.

The other Engine is not a steam plow, but simply a *Steam Horse*, that, it seems, can go up hill or down, on smooth or rough ground, and turn corners with ease, and draw any quantity of plows, &c., after it. It is called *Boydell's Steam Tractor*. It is a locomotive that carries its track attached to the wheels, and lays it down and takes it up of itself. The wheels are each armed with six shoes of 3 to 4 feet length, which are simply but ingeniously connected with the fellies in such a manner, that for a movement in the revolution of the wheel, it rests upon two of them, which are then both nearly in a right line and lying on the ground; the next instant, however, the wheel rolls upon the foremost of the two, and the hindmost is lifted. The shoes are made of stout plank 8 to 10 inches wide, and heavily armed with iron bands, and each has an iron rail on which the wheel runs. But it is difficult to describe this arrangement. Doubtless full descriptions and engravings will shortly be obtainable. The 'Tractor' remained on the trial ground last night, and what the judges will decide with regard to it is not yet known. It seems to involve a valuable principle, and excites vast interest. I did not see it in operation, but saw a one-horse cart with wheels rigged on the same plan, which was pretty heavily loaded with tiles and driven about, backed; and turned short, over ridged and recently plowed land, and its action was very good. I doubt if the load would have been nearly so easily drawn with a common cart. In crossing the dead furrows, the shoes in a manner bridged the hollow, not allowing the wheels to run so low as they must have done otherwise. I should mention that the shoes are notched at the ends, so that when laid flat, the end of one reaches by that of the other, thus after the *wheel* has run off one, the end of it outside the wheel is still a foot or more beyond a line let fall from the axletree. This cart is of course mainly intended for soft or plowed land, and doubtless it will not be long in becoming useful and used.

Notes for the Month.

The Weather and the Crops.—Last evening (Aug. 5) this vicinity was visited with a heavy storm, but the week past has been dry and hot, favorable for corn, which is generally very late, and for harvesting the grain and hay. A large quantity has been gathered in during the week. The *twelve days rain* (July 18 to 30) has seriously damaged the quality of the wheat in western New York, northern Ohio, Michigan, and Canada West. We have visited several counties in western New York, and taken samples of wheat from upwards of 30 different fields. The lowest number of *sprouted* grains in any field examined was *seven per cent;* the average of the thirty fields was *seventeen per cent.* One field in Seneca County, standing erect and bright, contained 27 per cent of sprouted grains. We believe that, on an average, *one fifth* of the wheat in western New York is *sprouted* Barley is a good crop and little injured by the rain. Oats are very heavy, and laid, but not materially damaged. Potatoes never looked better. In Livingston County we heard there were symptoms of the disease, but generally the tops and tubers are healthy. There will be more oats and potatoes harvested this year than ever before in this country. Much hay has been damaged, but taking the country through it is thought the rain has improved the growing grass, especially on old meadows, as much as it has injured that which was down.

A Profitable Asparagus Bed.—It is well known that no vegetable yields more profit when properly cultivated than asparagus. Mr. A. E. Brown of this city informs us that he sold this season from a bed 60 by 102 feet, or about one seventh of an acre, $93.75 worth of asparagus, in addition to that consumed by his own and the gardener's family. Estimate this at $6.25, and the produce is at the rate of *seven hundred dollars per acre.* Who can beat it?

Mr. Brown's method of cultivation is very simple. About the first of July, after he has done cutting, the bed is *thoroughly hoed*, cutting up the weeds, asparagus and all. The rubbish is raked off, and the surface of the bed left clean and mellow. The asparagus soon springs up again, and at this time it is six feet high.

Albany Co. Ag. Society.—The Prize List, together with rules, list of judges, town committees, &c., for the next Fair, has been published, and can be had of the Managers in the several towns, or at the office of the Secretary or office of this paper in this city. More than $2 000, is offered in prizes, embracing thirty-two for Horses and Mules, varying from $2 to $10 each; one hundred and thirty-six for Cattle from $2 to $40 each; ninety for Sheep, Swine and Poultry, from $1 to $10 each; ninety-eight for Fruit, Vegetables, &c; thirty for Butter, Cheese and articles for the table: nine for Flour; one hundred and three for household manufacturers; fifty-seven for Farm Implements; eleven for Harness and Farm Vehicles; twenty for Castings, Hardware, Jewelry, &c; nine for Household furnishing articles; twelve for miscellaneous articles and four for horsemanship by ladies.

Onondaga Co. Ag. Society.—This society, we are gratified to learn, has, by a stock subscription, succeeded in raising about $10,000 for the purchase of suitable grounds for its annual exhibitions. An additional $3,000 is pledged, toward the erection of the necessary buildings, fences, &c. The committee chosen for the purpose, have selected and purchased ten acres, at $500 per acre, located just without the southern bounds of the city, in the town of Onondaga, and a mile and a half from the Central Railroad Depot. The site is a very convenient and accessible one, and is estimated to be worth one-third more than the cost.

The Societies in Jefferson, Dutchess and Rensselaer, we believe, own their show grounds, and we hope the time is not far distant, when sufficient public spirit will be found to furnish all our County Societies with the ground and buildings necessary for their exhibitions.

Ag. Books and Papers for Premiums.—The Ohio State Ag. Society have resolved to award several hundred copies of the Ohio Farmer and Ohio Cultivator as premiums at their next exhibition. Many of the county Societies in the different states, include considerable numbers of agricultural periodicals in their prizes, and the Clinton Co., (N. Y.) Society, has adopted as a rule that one half of all its premiums shall be paid in books or papers—the books and papers to be selected by the persons to whom the awards are made—that is, where a prize of $10 is awarded, $5 will be paid in cash and $5, in agricultural, horticultural or mechanical books, and since the above was written we have received the Prize List of the Brookfield Ag. Society, Madison Co., N. Y., whose Fair is to be held at the village of Clarkville on the 19th and 20th of Sept. Among the prizes offered by this town association, are 22 copies of the Country Gentleman, 85 of the Cultivator, and a considerable number of the Rural New-Yorker, Genesee Farmer and Wool-Grower.

California Hemp.—We are greatly indebted to our friends of the *Sacramento State Journal* for a specimen of California Wild Hemp, said to grow in great abundance in Four Creeks Valley, Tulare Co., Cal. There are two samples, one bleached, the other in the raw state. The former is 4 feet long and the latter 4 feet 9 inches, measured in this office. They are somewhat coarse but very strong, and altogether a good specimen of the agricultural productions of the golden state. The plant appears to be known as the " wild cotton " or milk-weed." We should be glad to learn farther particulars. It is quite probably that as the *Journal* says, " hemp will soon form an important item " in the commerce of California.

Ohio State Fair.—We have received from the secretary, Dr. Sprague, a beautiful lithograph of the Ohio State Fair grounds near Columbus. It is an excellent representation of the grounds and surrounding scenery, creditable alike to the artist and the society. The fair will be held Sept. 18—21; much enthusiasm is manifested, throughout the state, and we expect such an exhibition as even Ohio has not made before.

Devon Herd Book.—The 1st and 2d vol. of Davy's Devon Herd Book, can be had at this office—price $1.00—sent by mail, post-paid, for $1.20. Every breeder of Devons should have a copy of this work as it includes most of the Devons in this country as well as in England.

Ag. Orators.—At the New-Hampshire State Fair, Prof. C. B. Haddock of Hanover—at New-York, Gov. Wright of Indiana—at New-Jersey, Prof. J. A. Porter of New-Haven—at Pennsylvania, Hon. Fred. Watts—at Illinois, Hon. D. J. Baker—at Maine, Prof. J. A. Nash, of Amherst.

☞ The *American Farmer* for August, in speaking of the extent of its circulation, includes the majority of the Union, from " New Hampshire, Vermont and New-York," " to Oregon and California," and adds:—" If the Country Gentleman goes any *wider* than that, we give him over to King Alexander and the Sandwichers."

We are happy to say that we are already in possession of the field, having been on duty there, in a sort of missionary way, for several years past, and one subscriber in East Maui now taking four copies of our weekly and twice that number of *The Cultivator.* In one territory, farther off than Oregon, so far as the means of getting to it are concerned, of which our amiable cotemporary does not seem to have heard, *Washington*, we have also a goodly number, to which the last steamer brought quite an addition. And in the other direction,—not to speak of *Maine*, which he does not include, and where we have a very considerable constituency—all through Nova Scotia, New Brunswick and both the Canadas, we can count the names on our books by hundreds. Is this "wide" enough to justify our claims?

Agricultural Exhibitions.

New-Hampshire.—The State Fair is to be held at Manchester on the 12th, 13th and 14th of Sept. J. O Adams, Sec'y, Manchester.

Vermont.—State Fair at Rutland, on the 11th, 12th and 13th Sept. A meeting of the Directors was held at Rutland, recently, when the preliminary arrangements were all satisfactorily completed, and inducements are offered for a more extended exhibition than has been held since the organization of the Society F. Holbrook, Brattleboro, Pres't—J. A. Beckwith, Middlebury, Cor. Sec'y.

Rhode-Island.—The R. I. Society for the Encouragement of Domestic Industry, will hold an exhibition of Live Stock, at Providence, commencing Sept. 11, and to continue through the week. The Premiums are liberal, amounting to $4 000, and are *open to the United States and the British Provinces*, and arrangements are being made with rail road companies in New-York and New-England, to carry passengers and animals to the exhibition at reduced rates. J J Cooke, Pres't—C. T. Keith, Sec'y. Providence.

New-York.—The annual exhibition for this year, is to be held, for the first time, on the line of the Erie Rail Road, at Elmira, Oct. 2, 3, 4 and 5. Beautiful grounds have been selected, and the work of preparation has already been commenced in good earnest. "The very best spirit," says the Journal of the Society for Aug, "prevails at Elmira, and in the whole southern and western part of the State and in Pennsylvania, and the prospects for the Fair are in the highest degree encouraging. All our best breeders of stock will be represented, and the display in the implement and mechanical department promises to be one of unusual excellence. The spirit which has been aroused in the ladies' department gives assurance that the competition will be greater than at any previous Fair." Samuel Cheever, Pres't, Mechanicsville—B. P. Johnson, Cor Sec'y, Albany.

American Institute.—The next exhibition of this association is to be held at the Crystal Palace, New-York, commencing on the 3d of Oct., and to continue through the month. Their usual cattle-show is to be omitted this year.

Pennsylvania.—The exhibition of the State Ag. Society will be held at Harrisburgh, on the 25th, 26th, 27th and 28th Sept. This Society makes the field of competition co-extensive with the United States, and cordially invites the citizens of other states to compete for its prizes. James Gowen, Pres't—A. L. Elwyn, Cor. Sec'y—both Philadelphia P. O.

Virginia.—State Fair to be held at Richmond, Oct. 30, 31, and Nov. 1 and 2. Among the premiums offered by this Society, are a great number for experiments and discoveries—among them is one of *one thousand dollars*, "for the discovery of some efficient and available remedy, such as may be judiciously used by farmers, to secure the wheat crop against the ravages of the joint worm."

Ohio.—The State exhibition is to be held at Columbus, Sept. 18, 19, 20, and 21, and a better show than ever before is anticipated. Jas. T. Worthington, Chillicothe, Pres't—G. Sprague, Columbus, Cor. Sec'y.

Illinois.—Great preparations are making for the State Fair to be held at Chicago, Oct. 9, 10, 11, and 12. H. C. Johns, Decatur, Pres't—J. A Kennicott, West Northfield, Cor. Sec'y.

Connecticut—at Hartford, Oct. 9—11.
New-Jersey—at Camden, Sept 18—21
Maryland—at Baltimore, Oct. 29--31.
Indiana—at Indianapolis, Oct. 17—19.
Michigan—at Detroit, Oct. 2—5.
Canada East—at Sherbrooke, Sept. 11—14
Canada West—at Cobourg, Oct 9—13.
Iowa—at Fairfield, Oct. 10—13.
Kentucky—at Paris, Sept, 25—28.
North Carolina—at Raleigh, Oct. 16—18.
Georgia—at, Atalanta, Sept. 10—14.

READ THIS!
AND SEND IN YOUR ORDERS.

50 THOUSAND GRAFTED APPLE TREES, of the best varieties, from 5 to 7 feet high, at $80 per thousand, very thrifty and unsurpassed.

60,000 One year old Apples, of different varieties, of vigorous growth.

Also, Apple Seedlings, one and two years old—Cherry do., very fine—all of which I will sell for cash or approved credit with interest, on favorable terms.

The actual cost of Packing will be charged in all cases.

JAMES M. TAYLOR,
Aug. 23—wtf Commercial Nurseries, Syracuse, N. Y

TO FARMERS
And all others Interested in Agriculture, Horticulture, &c.
WILL BE PUBLISHED IN OCTOBER, 1855,
THE YEAR BOOK OF AGRICULTURE:
OR, THE ANNUAL OF AGRICULTURAL PROGRESS AND DISCOVERY FOR 1855.
Exhibiting the most important Discoveries and Improvements in

Agricultural Mechanics,
Agricultural and Horticultural Botany,
Agricultural and Economic Geology,
Agricultural Zoology, Meteorology, etc.

Together with

Statistics of American Growth and Production, A List of Recent Agricultural Publications, Agricultural Patents, with Notes by the Editor on the Progress of American and Foreign Agriculture, for the year 1855.

BY DAVID A. WELLS, A. M.,

Member of the Boston Society of Natural History, formerly Chemist to the Ohio State Board of Agriculture; Editor of the Annual of Scientific Discovery, Familiar Science, &c &c.

It is evident that a publication of this character, giving a complete and condensed view of the Progress of every Department of Agricultural Science, free from technical and unnecessarily scientific descriptions, and systematically arranged so as to present at one view all recent Agricultural Facts, Discoveries, Theories and Applications, must be a most acceptable volume to every one interested in the Cultivation of the Soil, or the Diffusion of Useful Knowledge.

THE "YEAR BOOK OF AGRICULTURE" will be published in a handsome octavo volume, comprising upwards of 300 pages, and will contain an elegant Steel Portrait of a Distinguished Agriculturist, together with Fine Illustrations of New Agricultural Machines, Stock, Fruit, &c., together with a series of

BEAUTIFULLY COLORED ENGRAVINGS.

Although the publication of this work will be attended with very heavy expenses, it will be issued at the low price of $1.50, thereby enabling every Farmer and Planter to possess a copy.

On receipt of the published price it will be sent free per mail, to any part of the United States. As the sale will be very large, all orders should be sent in immediately.

A LIBERAL DEDUCTION TO CLUBS.
Address CHILDS & PETERSON,
124 Arch-St., Philadelphia.

☞ *AGENTS wanted to sell the above valuable work.*
Aug. 23—w1tm1t

Now in Press, and will be issued about the First of October,

THE ILLUSTRATED
ANNUAL REGISTER OF RURAL AFFAIRS,
AND
CULTIVATOR ALMANAC FOR 1856,

Embellished with more than ONE HUNDRED Engravings.

Price—In Paper Covers, 25 Cents—Bound, 50 Cents.

The large circulation accorded to the first number of this work, (for 1855,) and the commendation it has received from all quarters, have encouraged the publisher to increased effort to make No. II, for 1856, an improvement, if possible, on its predecessor.

The Register will be issued about the first of October, and will contain Calendar Tables and Astronomical Calculations similar to those in the previous issue—calculated for the Meridians of Boston, New-York and Baltimore.

The body of the work will comprise as large a variety of subjects and be illustrated even more beautifully. It will continue the treatment of

COUNTRY DWELLINGS,

Illustrating the subject with a number of New, Original, and very Valuable Designs, and a large number of Engravings. The copy for this department has been prepared with great care, illustrated at a large expense, and will be invaluable to every resident in the country.

This will be followed by a chapter on

FARM BUILDINGS,

Including a variety of Original Plans for Barns, Carriage Houses, &c. To this subject, as well as the preceding, much time and labor has been devoted. The chapter on

FARM IMPLEMENTS

Will be one of much interest, and will be treated more at length than in the present year's issue. The progress of improvement and invention, renders it necessary that the farmer should keep himself well posted in this respect.

LISTS OF FRUITS,

Descriptions of different kinds, and a further consideration of their growth and culture, will make the Annual Register for 1856 a desideratum for all who have a spot of ground devoted to trees. It was one of the chief subjects in the number for 1855, and will not therefore be now treated quite so much at length, but it will contain the acquisitions of recent experience and much that is universally indispensable.

TREE PLANTING,

Embracing select lists of Trees, Shrubs, Perennials, &c., &c., and other requisite information, will be illustrated and exemplified at some length. The chapter this year on

DOMESTIC ANIMALS,

will include the

Management and Breeds of Poultry,

As well as others of its various branches, with accompanying engravings, &c., which will make it of increased value wherever Fowls or other animals are kept.

THE DAIRY.

This department will contain condensed directions, and be illustrated by the experience and modes of the most celebrated Dairy Districts in this country and abroad. All will be interested and most materially assisted by its hints.

We shall in addition to the above, give chapters on the various branches of

RURAL ECONOMY,

And endeavor to comprise as many Valuable Suggestions as possible, for the Farmer, the Gardener, and the Housekeeper, in a few pages of AGRICULTURAL MISCELLANY—including in this department all that cannot be appropriately classed elsewhere.

This rough abstract of the Contents of the forthcoming number of the Illustrated Annual Register, will give an idea of the extent and variety of the ground it covers, and to those who have seen this year's, it will be necessary to add nothing more in regard to its value, than to say that it is from the experienced and careful pen of Mr. John J. Thomas.

TERMS.

In Paper Covers—25 Cents per single copy—$2,00 per dozen—post-paid.
Bound in Muslin—Single copy, 50 cents, post-paid—$4,00 per dozen, by Express.

More favorable terms for larger quantities, may be known by applying to the Publisher.

ADVERTISEMENTS.

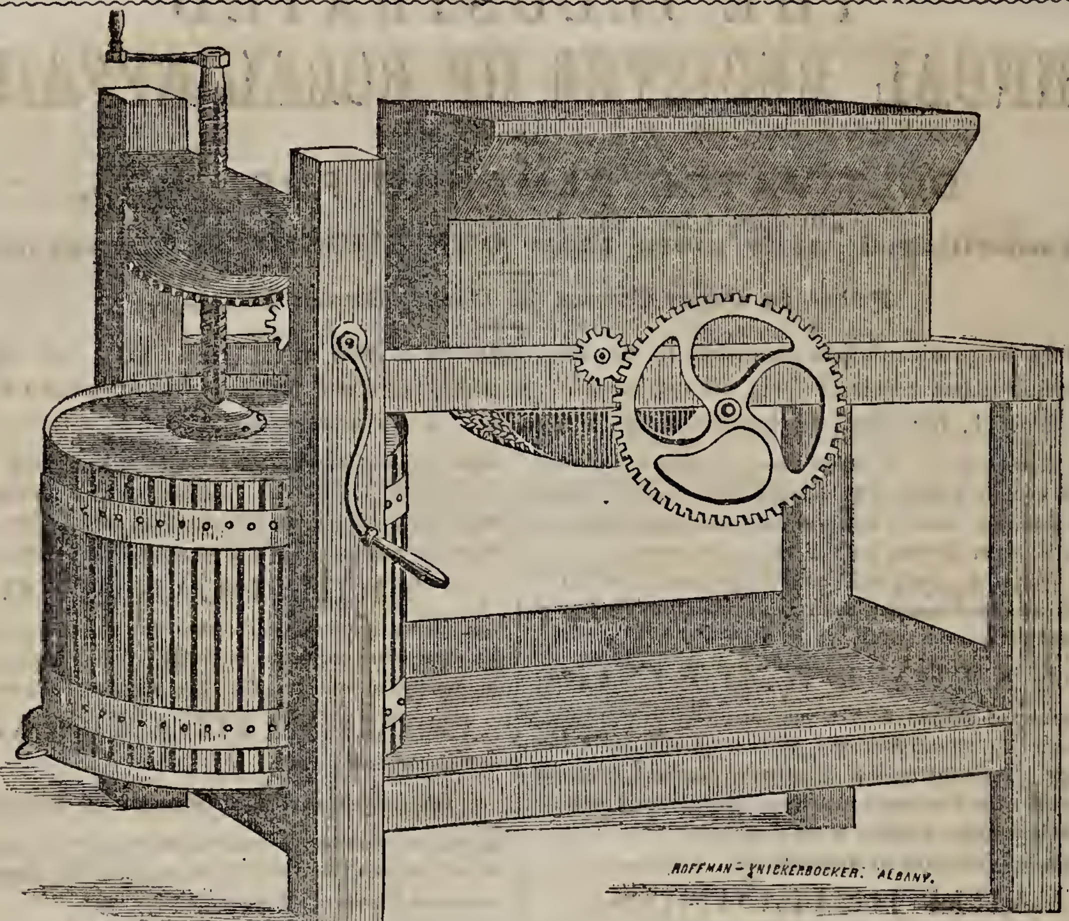
A limited number of pages will be devoted to Advertisements, on the following terms:

One Page, $20. Half Page, $12. One-Third Page, $8. Business Cards, $2 to $5.

The extensive circulation of the Register, and the interest of its contents, which makes them the subject of constant reference, as well as careful preservation, render it the best advertising medium with which we are acquainted. The circulation of the issue of 1855, has been upwards of 20,000, and that for 1856 will probably *more than double this number*. Dealers in Seeds, Implements, &c., Nurserymen, Publishers, and all who would bring their business before the most enlightened class of our Rural Population, from Halifax to the Pacific Coast, will find the Register to offer very superior facilities, at a reasonable price.

LUTHER TUCKER,
Albany, N. Y.

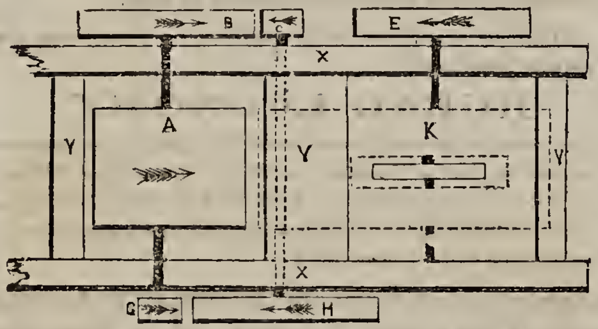
☞ Advertisements must be immediately sent in. ☜


HOFFMAN – KNICKERBOCKER: ALBANY.

EMERY'S CIDER MILL AND PRESS,

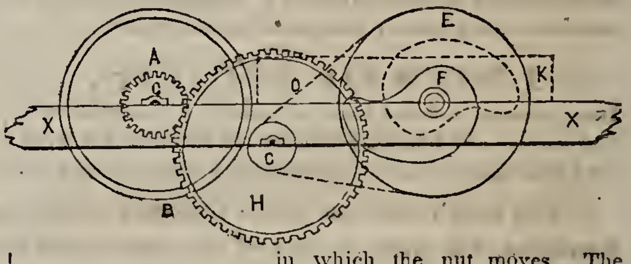
THE above cut represents the Mill and Press complete.

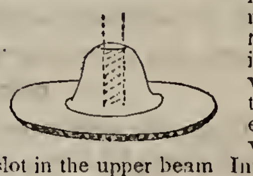
The diagrams annexed represent in outline, the several parts and their manner of operation. The same letters refer to the same parts in each diagram.



A—Grating cylinder, about 11 inches in diameter and 7 long
B—Band pulley of iron, used when driven by Power, answering also for fly-wheel on shaft of cylinder A.
G—Small speed gear on cylinder shaft, for driving it when worked by hand.
C—Small pulley on crank shaft which drives pulley and cam.
E—Large pulley driven by C, moving cam F.
F—Cam for driving feeding piston K, in bottom of hopper.
H—Large speed gear wheel on crank shaft, working into pinion G to drive cylinder when worked by hand.
K—Piston shown by dotted lines operated by cam F, in its
O—Band connecting feed-pulleys.
center, and serves to press forward apples against the grating cylinder.
XX—Top girts or supporting plates of mill.
YYY—Cross girts between plates

Among the advantages of this mill are the following:—This piston action in feeding apples or other substances, avoids all choking and clogging of cylinder or its teeth—the cam is so constructed as to make a uniform progression in its whole motion, and allowing the piston to recede by means of a spring action instantly—and the progressing motion of piston occupying more than 9-10ths of its whole revolution, and the backing of piston less than 1-10th. The feeding motion is obtained by means of a small band driven from a pulley C, on crank shaft to large pulley E, on cam shaft. Thus, while it makes a sure and steady feeding, the band by an adjusting pulley is made sufficiently tight to do the work, and yet sufficiently loose to slip and stop feeding, if any foreign substance like stones or iron gets into the mill, and thereby avoids breakage and repairs—a desideratum never before obtained in a portable cider mill. It can be readily worked by hand by one or two men, as it is provided with two crank handles, one at each end of the crank shaft.





The Press is constructed with an iron stress beam, above and below—the upper beam formed into an inverted "step" in which the nut moves. The nut, as shown in the figure, is formed by cutting a screw thread in the hub of a strong bevel wheel which is about 20 inches in diameter. The pressure screw is 2 inches in diameter, and a slot cut its whole length, and a corresponding slot in the upper beam Into this slot a loosely fitted steel key is placed, fitting both screw and beam: thus, while it does not prevent the screw moving endways, it prevents it from revolving with the nut. The nut is moved by means of the bevel gear on its outer under edge, and a bevel pinion working into it. This pinion is moved by a crank or a ratchet lever, similar to the action of the handle of an ordinary pump in raising water.

While this is of greater capacity than any other portable press, it is capable of withstanding three times the stress of any before offered the farmers of this country. The capacity of the grater is in proportion to the power, and the size of the feed pulley used on cam shaft—thereby accommodating itself to any farmer's notion—grating fine as meal, or coarser, as circumstances require. Its weight is about three hundred pounds. Price $45—and Warranted.

Manufactured this season exclusively at the Albany Agricultural Works, by EMERY BROTHERS, Proprietors.

P. S. Also on hand, Hickok's Cider Mill, for sale at Manufacturer's price—$10.

C. M. SAXTON & CO.

152 Fulton Street, New-York,

PUBLISH the following

BOOKS FOR THE COUNTRY.

Sent Free of Postage to any part of the United States.

1. Browne's American Field Book of Manures, $1 25.
2. Browne's American Poultry Yard, twenty-sixth thousand, $1 00.
3. Browne's American Bird Fancier, cloth, 50 cts.
4. Dadd's American Cattle-doctor, cloth, $1 00.
5. Dana's Muck Manual, cloth, $1 00.
6. Dana's Prize Essay on Manures, 25 cts.
7. Stockhardt's Chemical Field Lectures, $1 00.
8. Blake's Farmer at Home, $1 25.
9. Buist's American Flower Garden Directory, $1 25.
10. Buist's Family Kitchen Gardener, 75 cts.
11. Norton's Elements of Scientific and Practical Agriculture, 60 cts.
12 Johnson's Catechism of Agricultural Chemistry, for Schools, 25 cts.
13. Johnston's Elements of Agricultural Chemistry and Geology, $1 00.
14. Johnston's Lectures on Agricultural Chemistry and Geology, $1 25.
15. Downing's Landscape Gardening, $3 50.
16. Fessenden's Complete Farmer and Gardener, $1 25.
17. Fessenden's American Kitchen Gardener, 25 cts.; cloth, 50 cts.
18. Nash's Progressive Farmer, 60 cts.
19. Richardson's Domestic Fowls, 25 cts.
20. Richardson on the Horse; Varieties, Breeding, &c., 25 cts.
21. Richardson on the Diseases and Management of the Hog, 25 cts.
22. Richardson on the Destruction of the Pests of the Farm, 25 cts.
23. Richardson on the Hive and Honey-bee, 25 cts.
24. Milburn and Stevens on the Cow and Dairy Husbandry, 25 cts.
25. Skinner's Elements of Agriculture, 25 cts.
26. Topham's Chemistry made easy for the Use of Farmers, 25 cts
27. Allen's Treatise on the Culture of the Grape, $1 00.
28. Allen on the Diseases of Domestic Animals, 75 cts.
29 Allen's American Farm Book, $1 00.
30. Allen's Rural Acrhitecture, $1 25.
31 Pardee on the Cultivation of the Strawberry, &c., 50 cts.
32. Pedder's Farmer's Land Measurer, 50 cts.
33. Phelps' Bee-keeper's Chart, 25 cts.
34 Guenon's Treatise on Milch Cows. illustrated, 38 cts.
35. Gunn's Domestic Medicine, a book for every married man and woman, $3 00.
36. Randall's Sheep Husbandry, $1 25.
37. Youatt, Randall and Skinner's. Shepherd's own Book, $2 00.
38. Youatt on the Breeds and Management of Sheep, 75 cts.
39 Youatt on the Horse, $1 25.
40. Youatt, Martin and Stevens on Cattle, $1 25.
41. Yonatt and Martin on the Breeds and Management of the Hog. 75 cts.
42. Munn's Practical Land Drainer, 50 cts.
44. Stephen's Book of the Farm, complete, 450 illustrations, $4 00.
44. The Architect; or Plans for Country Dwellings, $6 00
45. Thaer, Shaw, and Johnson's Principles of Agriculture, $2 00.
46. Smith's Landscape Gardening, Parks, and Pleasure Grounds, $1 25
47. Weeks on the Honey Bee, 50 cts.
48. Wilson on the Cultivation of Flax, 25 cts
49. Miner's American Bee-keepers' Manual, $1 00.
50. Quinby's Mysteries of Bee keeping. $1 00.
51. Cottage and Farm Bee-keeper, 50 cts.
52. Elliott's American Fruit-grower's Guide, $1 25.
53. The American Florist's Guide, 75 cts.
54. Every Lady her own Flower Gardener, 25 cts.; cloth, 50 cts
55. The American Rose Culturist, paper, 25 cts.; cloth, 50 cts.
56 Hoare on the Cultivation of the Vine, 50 cts.
57. Chorlton's Cold Grapery, from direct American Practice, 50 cts
58. Saxton's Rural Hand Books, 2 vols., $2 50.
59 Bement's Rabbit Fancier, 50 cts.
60 Rumelin's Vinedressers Manual, 60 cts.
61. Neill's Fruit, Flower and Vegetable Gardeners' Companion, $1 00.

Aug 23—w1tm1t

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No. 12 BROADWAY, NEW-YORK.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers Reapers, Horse Powers and Threshers, Combined Thresher' and Winnowers, and other Agricultural Machines.

May 24—m12t*

TO HOP GROWERS.

THE BEST PAPER

You can take, for Foreign and Domestic Hop Markets, and information in regard to Hops generally, is the *Freeman's Journal*, Cooperstown, Otsego County, N. Y. Otsego is the great hop-growing district of this country. Terms, $1,50 for one year; $1.00 for 8 months

G. M. SHAW,
June 28—w&m1t Proprietor.

FAIRBANKS' SCALES.

Warehouse No. 189 Broadway, N. Y.

THESE celebrated scales are still manufactured by the original inventors By an enlargement of their works, and an introduction of improved machinery, these scales are now furnished at greatly reduced prices. We have recently added to our stock a full assortment of *fine Gold and Druggists' Scales, Spring Balances, Patent Beams, Weights &c.* and now offer at wholesale and retail the most complete assortment of weighing apparatus to be found in the United States. We have a new and convenient article which we denominate the "FAMILY SCALE," it being particularly adapted to the wants of farmers and all housekeepers.

Hay and coal scales set in any part of the country by experienced workmen. Orders and letters of inquiry by mail will receive prompt attention.

FAIRBANKS & Co.
July 12—w&m3ms. 189 Broadway, New York.

DOMESTIC ANIMALS

AT PRIVATE SALE.

L. G. MORRIS' ILLUSTRATED CATALOGUE, with prices attached, of Short Horned and Devon Bulls and Bull Calves, a few Horses, South Down Rams, Berkshire, Suffolk and Essex Swine, will be forwarded by mail (if desired,) by addressing L. G. MORRIS, Fordham, Westchester Co., N. Y., or N. J. BECAR, 187 Broadway, New York. It also contains portrait, pedigree, and performances on the turf of the celebrated horse "Monarch," standing this season at the Herdsdale Farm. May 3, 1855—w&mtf

Virginia Land for Sale.

THE subscriber having yet a few Farms for sale from his large and valuable tract of land situated in the county of Fairfax, Virginia, on and near the Turnpike leading from Washington and Georgetown to Leesburgh, 16 miles from the city of Washington, two miles from the Canal, and within 3 miles of the Alexandria, Loudon and Hampshire Rail Road. The soil is of the first quality, of a deep red color, seldom affected by drouths to which most lands are subject. Adapted to grain, plaster, clover, and all kinds of grass. The land will be sold in lots of 100 or 200 acres, or as the purchaser may desire. Every Farm will be well supplied with wood, which consists of oak, chestnut and second growth of pines Persons wishing to purchase would do well to call and examine before purchasing elsewhere. For further particulars, inquire of the subscriber on the premises.

S. S. MILLER,
Aug. 1—m5t Spring-Vale. Fairfax Co., Va.

FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPER & Co., 41 Water St., New-York; Caleb Gasper, Esq., Marcellus, Onondaga Co., Geo Young, Esq., Milo Center, Elias Bently. Esq., Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N. Y., Judge Ellsworth, Pen Yan.

March 1—mtf—

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag. Price $53 per ton of 2000 lbs.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag. Price $43 per ton of 2000 lbs.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure 2 under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
July 19—w9tm3t New-York.

Stock Farm for Sale

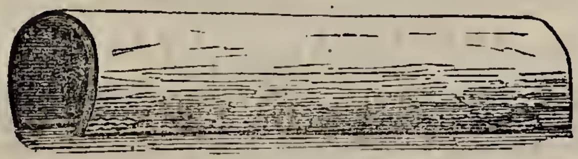
FROM injuries sustained, the subscriber is compelled to offer his Farm for sale, consisting of 285 acres of Prairie and Timber land—one hundred acres under cultivation; 50 acres Burr Oak Timber; balance red top, timothy and prairie grass lawn; situated in Fox River valley, Walworth County, Wisconsin. White River, a fine, never failing stream, flows through it, and several fine springs and a very fine well of water are upon the property. There is a good Frame House, with cellar, surrounded by a Grove of large timber; a Tenant House; a good Barn, with cellar and stabling for five horses and twelve cows; Smoke House, and all the requisites of one of the best and healthiest farms in the Union. Furniture, Stock, Farm and Utensils will be sold low, and offers a fine opening to any who wish to live west, in a healthy region, near Railroads, and where there is always a good market for grain and stock. Fences mostly new. Terms made known by addressing H. IRVIN,

July 19—m3t* Burlington, Racine Co., Wis

Appleton & Alderson's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

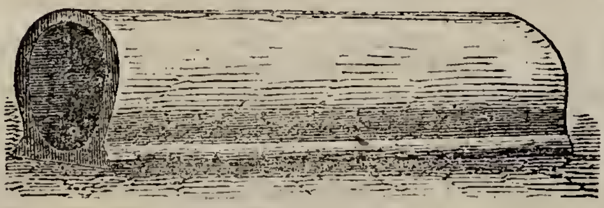
HORSE SHOE TILE, 14 INCHES LONG.



PIECES.

4½ inches calibre,	$18 per 1000.
3½ inches calibre,	15 per 1000.
2½ inches calibre,	12 per 1000.

SOLE TILE, 14 INCHES LONG.



PIECES.

4 inches calibre, at	$40 per 1000.
3 inches calibre, at	18 per 1000.
2 inches calibre, at	12 per 1000.

THE subscribers having enlarged their works, are now prepared to furnish Drain Tile of the various patterns and prices. Also Large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. We warrant our Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchant's, 71 Quay-st., Albany, near the Steamboat landing.

Full directions for laying Tile will be sent free to those addressing the subscribers.

We only need say that Appleton & Alderson obtained the first prizes for Tile at the Albany County, and N. Y. State Fairs. Practical drainers furnished if required.

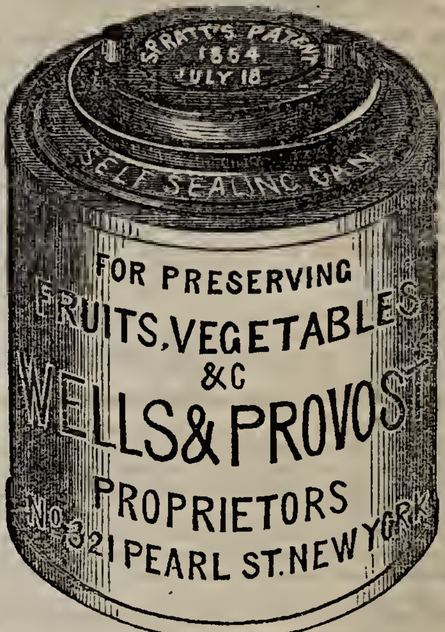
Orders from all parts, will be thankfully received and promptly attended to.

Address APPLETON & ALDERSON,
195 Washington-st., Albany, N. Y.
May 31—weow&m5m

THOMAS GOULD

BREEDER of Durham and Devon Cattle, Leicester Sheep, Suffolk Swine, Madagascar or Lop-eared Rabbits, English Ferrets, Guinea Pigs, Choice and Fancy Poultry..

Jan. 18—w&mtf Aurora, Cayuga Co., N. Y.



VERY IMPORTANT

To Housekeepers, Farmers and Fruit Growers.

ABOVE is a representation of a Canister, with a patent attachment, designed for preserving fruits and vegetables of all kinds in a perfectly fresh state, with their natural shape, color and flavor. It is termed the "Self-Sealing Can," and so called because soldering is dispensed with in closing up the aperture of the can, and because, by the simple turning of a cap, the outward atmosphere is wholly excluded

With these cans, and directions given with them, such fruits as Apples, Pears, Peaches, Strawberries, Raspberries, Blackberries, &c.; and such vegetables as Tomatoes, Green Peas, Green Corn, Beans, and, indeed, every species of either, may be preserved for years in their fresh state without the addition of salt, sugar or acid, or any other preservative property whatever.

Many of these fruits decay and go to waste upon the trees, bushes and market places. Now they may be saved and used, out of their season, for table or pastry purposes.

With this Canister they can be preserved economically, as sugar and spirits may be dispensed with.

Health is greatly promoted by the free use of fresh fruits and vegetables, while, on the contrary, digestion is greatly impeded, and the digestive organs impaired by the use of preserved fruits so completely saturated with sugar, as are the ordinary sweetmeats preserved by families.

These cans may be used year after year. The directions for preserving fruit and vegetables accompany the cans. The mode is so simple that an ordinary house servant, or child ten years of age, need make no error.

A little wrench should be purchased for screwing down the cover tightly, thereby making a perfect job. The Funnels also are a great convenience to those who would easily and nicely fill the cans. They are made for, and are perfectly adapted to the purpose.

N. B.—The "Genuine Self-Sealing Cans" have cast in letters on the top of the cap, "Spratt's Patent," "Wells and Provost, Proprietors, New-York." This much is mentioned to prevent imposition upon the public by any spurious or worthless article in imitation.

All the cans are guaranteed to answer fully and perfectly the purpose for which they are recommended.

PRICES.

Quart Cans, per dozen,	$2.50
Half Gallon Cans, per dozen,	3.75
Wrenches, each,	10 cts.
Funnels,	10 cts.

For sale by WELLS & PROVOST
Sole Proprietors.

Warehouse for the sale of the Cans, &c., 321 Pearl street, near Franklin Square. New-York.

A liberal discount to Agents. July 19—w3tm2t

Hay Presses, Hay Presses.

DEDERICK'S PORTABLE PARALLEL LEVER HORIZONTAL AND VERTICAL HAY PRESSES.

THESE Presses are so constructed that they can be taken apart at the manufactory, and (by the printed directions accompanying each press) put together again in a couple of hours by any two farmers, without the aid of a mechanic. They are so conveniently portable that they can be moved from one field or farm to another, as a sleigh is moved, by a pair of horses or oxen, and for convenience and power of operation they are altogether unequalled. They are now being shipped to all parts of the country, and are in every instance giving the most decided satisfaction. With two men and a boy to attend the horse, one of these machines will bale from 6 to 8 tons of hay per day, according to the No. or size of the press. Prices, from $130 to $175. For circular, with full description, apply personally or by mail to the subscribers.

DEERING & DICKSON,
Premium Agricultural Works,
May 10—w&meowtf Albany, N. Y.

DE BURG'S NO. 1

Ammoniated Super-Phosphate of Lime.

THE above valuable compound is warranted pure and genuine. The manufacturing department is under the personal direction of the subscriber, and will have studious attention as to his preparation at all times being uniform in its component parts. Many experiments during the past year, with the above brand, in equal quantity with Peruvian Guano and other concentrated Fertilizers, scrupulously testing its value as compared with the latter, by various State Farms, public Agricultural Committees, &c., have been made, showing a preference for it as a manure, both as to early inducement and prolificness of growth. Pamphlets will be sent on application to the subscriber, containing full directions for use, &c.

C. B. DE BURG,
Sole Proprietor and Manufacturer,
June 14—w&mtf. Williamsburg, L. I.

TA-FEU.

A NEW FERTILIZER, manufactured from night-soil, which, after being screened, dried and disinfected, is raised to a certain standard by the addition of salts of ammonia. It is warranted to be composed of nothing but night-soil and the aforesaid salts of ammonia, as the chemicals used for disinfection add neither bulk nor weight to the composition. It is the intention of the LODI MANUFACTURING Co., who alone possess the right to this discovery, to make an article which can always be relied upon as pure and of a certain strength. It will be sold wholesale and retail, at $35 per ton of 2000 lbs., without charge for barrels or cartage, instead of which no tare will be allowed. A circular, containing testimonials of those who used an article something like, but much inferior in strength, made by us last season, will be forwarded by mail on application to the subscribers or their agents. Address

THE LODI MANUFACTURING COMPANY
No. 60 Courtland street,
May 31—w&m1m New York.

Maclura or Osage Orange Hedges.

H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants

IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges, given to purchasers.

G. G. SHEPPARD, New-York—P. B. MINGLE, Philadelphia—BYRAM, PITKIN & Co., Louisville, Ky., wholesale Agents.

Apply as above. April 5—w2m2m

BLACK HAWK.

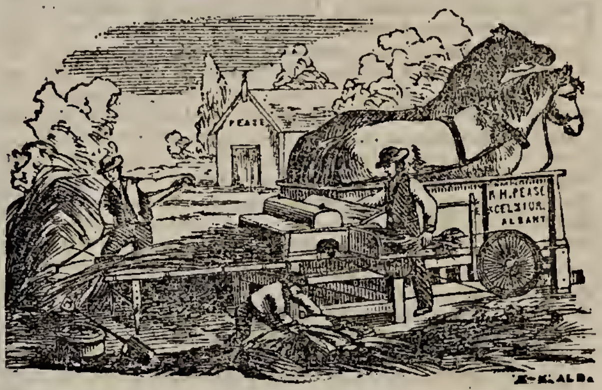
THE original VERMONT BLACK HAWK will serve a limited number of mares the coming season at $100 each. Gentlemen wishing to secure the services of this horse, must send in their letters at once.

Good pasturing at 50 cents per week. All accidents and escapes at the risk of the owner. DAVID HILL,
March 1, 1855—m5t Bridport, Addison Co., Vt.

Farm Lands for Sale,

IN LOTS TO SUIT PURCHASERS.

OVER 2,000,000 OF ACRES of Selected Prairie Farm Lands, belonging to the Illinois Central Railroad Company. The price will vary from $5 to 25, according to quality, location, &c. The purchase money may be payable in five equal installments, the first to come due in two years from date of contract, the others annually thereafter—giving six years to pay for the land, with a charge of only *Two per cent per annum interest*. The first two years' interest payable in advance. The Company's construction bonds received as cash. Apply to CHAS M. DUPUY, Jr.,
Land Agent Ill. Cen. R. R. Co.
March 15—m6t* No. 84 Lake St., Chicago, Ill.



Excelsior Agricultural Works.

Warehouse and Seed Store,

No. 369 and 371 Broadway, Albany, N. Y.

THE subscriber is prepared to furnish to order a full assortment of Farm Implements and Machines, adapted to all sections of the country both north and south, among which may be found

The Excelsior Changeable R. R. Horse Power.
" " Threshing Machines with Separators.
" " Cider Mill, Krauser's Patent.

Mowing and Reaping Machines, Grist Mills, Corn Shellers and Clover Hullers; Circular and Cross-cut saw mills adapted to the Horse Power, for cutting fire wood, fence stuff &c.

The list of Field and Garden Seeds is complete—embracing most of the Premium Grains on exhibition at the recent winter Show of the New York State Agricultural Soc. Among them is the Magnum-bonum Wheat, which is highly spoken of and apparently of great merit. Also a general assortment of Fertilizers. RICH'D. H. PEASE.

ENGLISH CATTLE,

Imported on commission by Messrs. THOS BETTS BROS., Bishop's Stratford, Herts, England — 81 Maiden Lane, New-York City.

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
Short-Horned Cattle,
Devons, Herefords, Ayrshires,
Alderney Cows from Islands of Alderney and Guernsey,
Pure bred Southdown Sheep,

Hampshire Sheep,
Cotswold, Leicester do
Suffolk Pigs,
Essex, Berkshire do
Merino Sheep from Spain,
Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane
Jan. 4—1am—m1y. New York City.

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HORSE POWERS,

OF the most improved Patents.
THRESHING MACHINES, with Separators,
CIDER MILLS, Hickok patent,
HAY, STRAW, AND STALK CUTTERS,
CORN SHELLERS, CLOVER HULLERS,
DOG POWERS, FANNING MILLS, &c. can be furnished at the North River Agricultural Warehouse.

GRIFFING & BRO.,
Aug. 23—w8tm3t 60 Cortlandt-st., New-York.

Pleasant and Profitable Employment.

A NUMBER of young Men may have constant employment in every County, by engaging in the sale of our ready selling Books. For particulars address

FOWLER and WELLS.
Aug. 23—w4tm2t. No. 308 Broadway, N. Y.

A SMALL FARM,

CONSISTING of about 65 acres, in Macedon, Wayne Co., N. Y., and two miles from the New-York Central Railroad, for sale by the subscriber. There are about ten acres of woodland, the rest being very fertile soil for all kinds of grain, or for grass. The house, barn, and other out-buildings are in ordinary condition—there is an acre of excellent peat or swamp muck—and a never-failing spring of water. The whole is capable of being made a very valuable and productive farm. Price, if sold soon, $65 per acre—possession next spring.

For further particulars, apply personally to

J. J. THOMAS,
8 mo. 9, 1855—w&mtf Macedon, Wayne Co., N. Y.

A. FROST & CO.,

Genesee Valley Nurseries, Rochester, N. Y.

THE stock of FRUIT, ORNAMENTAL TREES, &c., offered by us this season, is very large, and much the finest that we have ever had for sale. Our Nursery grounds, at the present moment occupy one hundred and fifty acres of fine land, completely covered with very thrifty and well grown plants, which enables us to furnish the entire orders of our customers, and give the most perfect satisfaction.

The packing of trees and plants is done in the most superior manner, by men of long experience in the business, so that plants may go thousands of miles in perfect safety.

Our Wholesale Catalogue, (No. 4,) for the autumn of 1855, and spring of 1856, has just been published for gratuitous distribution, containing the prices of trees, &c., in large quantities.

The attention of Nurserymen is particularly directed to our choice Young Nursery stock, such as Fruit Trees 1 year old from bud or graft; Fruit Tree stocks of every description in large quantities; Evergreens of small size, &c. &c.

The following Catalogues, containing prices will be sent *gratis* by mail, to those who enclose a one cent postage stamp for each.

No. 1. Descriptive Catalogue of Fruits.
No. 2. Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.
No. 3. Descriptive Catalogue of Dahlias, Verbenas, Green-House Plants, &c.
No. 4. Wholesale Catalogue or Trade List, (just published.)

Aug. 23—w2tm1t

NO. 1 PERUVIAN GUANO.

PERUVIAN GUANO, No. 1—Price $53 per ton of 2000 lbs. This guano we receive direct from the Peruvian government's Agent, with government weight and brand on each bag. Farmers purchasing of us cannot fail to receive the best No. 1 Peruvian. We keep none of the prepared, or No. 2 Guano.

Farmers or dealers wishing to purchase in large quantities, will receive a liberal discount.

BONE DUST, Land Plaster, Poudrette, Superphosphate of Lime, &c., at the North River Agricultural Warehouse.

GRIFFING & BRO.,
Aug 23—w8tm3t 60 Cortlandt-st., New-York.

FOR SALE,

A FEW pair fancy Lop-Eared Rabbits at moderate prices, very fine specimens, delivered at Hudson.

Also a few pair Dorking Fowls, from the fine stock of R. H. Van Rensselaer, ready for delivery in September. Address

S. V. C. VAN RENSSELAER,
Claverack,
July 26—w&mtf. Col. Co., N. Y.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

RURAL PUBLICATIONS.

THE attention of all persons interested in rural pursuits is invited to the following publications:

THE COUNTRY GENTLEMAN—a Weekly Journal for *the Farm, the Garden and the Fireside*—forming yearly two large and beautiful quarto volumes of 416 pages each. Price, $2 00 a year. This is, beyond question, the best agricultural journal published in this country. Specimens sent to all applicants.

THE CULTIVATOR—a Monthly Journal for the Farmer and the Horticulturist, beautifully illustrated, and forming an annual volume of nearly 400 pages, at 50 cents a year.

THE ILLUSTRATED ANNUAL REGISTER of RURAL AFFAIRS for 1855, embellished with more than *One Hundred Engravings*,—1 vol. 12 mo. 144 pp.—price, 25 cents in paper covers—bound, 50 cents—*sent prepaid by mail.*

RELATIONS OF CHEMISTRY TO AGRICULTURE, and the Agricultural Experiments of Mr. J. B. Lawes, a new work by Prof Liebig, just published, price 25 cents—sent prepaid by mail.

☞ Specimens and Prospectuses sent to those disposed to act as Agents. Address the publisher,

LUTHER TUCKER, *Albany, N. Y.*

THE CULTIVATOR.

FORBES. VAN VRANKEN, N.Y.

THIRD — To Improve the Soil and the Mind. — SERIES.

VOL. III. ALBANY, OCT., 1855. No. X.

Timber and Forests.

The rapid disappearance of all our forests should excite the serious attention of agriculturists generally. During a recent ride through a portion of country that we had well known twenty years since, but had not seen in this interval of time, we were struck with the havoc that had been made in the woodlands. A dense fifty-acre wood-lot, in particular, had been so reduced on every side by its three owners, that only a small portion remained; and this portion was so thin that close pasturage grew in every part. The wasting away which was so strikingly visible, appeared to be the result only of the home consumption of ordinary fuel. In the same neighborhood, an extensive land-owner informed us in looking over the surface that he had denuded of the original forest for his own fire wood, he had discovered that *one hundred acres* had been cleared for this purpose, during the forty years he had resided there.

The same results in a greater or less degree may be found almost everywhere. It has been estimated that at the present rate of consumption of the lumber districts of the country, the whole region east of the Mississippi will be stripped of everything valuable for this purpose within the next thirty years.

What will *then* be done? Where shall we get materials for houses and barns—for agricultural implements and machines of all kinds—for fencing — for bridges—and for the construction of all kinds of shipping—to say nothing of the three to five thousand cords of wood consumed annually as fuel in every township in the settled portions of the country? It cannot be supposed that all our farmers, most of them many miles from railroads or navigation, shall resort to coal, without great expense and inconvenience, for after paying several dollars a ton for this combustible, and then being compelled to draw it several miles in addition, will prove no slight matter.

What is to be done—for the crisis must be met within the next half century?

The answer is most obviously, commence the growing of timber trees *immediately*,—for they will be wanted quite as soon as a sufficient size is attained. We have been induced to collect some information recently on this subject, and believe we cannot do a better service to our readers than to give briefly its substance, together with some previously known to a few timber growers.

The first is to restore the waste that is constantly taking place. To cut out the larger trees from woodlands, and leave the smaller to take their place, is attended with a serious objection. The constant shade, even of a comparatively small number of scattered trees, is sufficient so prevent the successful growth of small underbrush, or to retard its progress so much that it will not increase in size more than one fourth to one tenth as fast as when all the young trees have an even start. It is therefore best in all cases, to cut off every thing clean at once, leaving only such as may be a few feet high, if there be any such.

After haing obtained a young and dense growth of trees, the next question is, what treatment shall they receive? An opinion is prevalent that they must then be left to themselves,—that nature will take the best course, &c. Experience has fully proved this opinion to be erroneous—and that judicious thinning of young forests is nearly or quite as essential as the same process with crops of onions, turnips and carrots. The thinning should be progressive, and not too severe at once, else the young trees will be suddenly exposed to hot suns and the cold of winter. A rule for the distance asunder in successive thinning, has been given by R. S. FAY, in the Essex County Transactions (Mass.) at one-half their height for deciduous trees, and one-third for evergreen—this is evidently too severe, unless when the trees are very young, and are soon expected to double their height; but the observance of a certain rate between hight and distance will be of use in preserving a proper degree of uniformity.

The following statement of an experiment in thinning by LEVI BARTLETT of Warner, New-Hampshire, appeared some time ago in the New-England Farmer:—

> About twenty-five years ago I came into possession of several acres of "pine plain land," covered with a thick growth of white. yellow and Norway pines; the trees were then about twenty-five years from the seed. (The land was burned over in a very dry time about the year 1800) Immediately after I came into possession I thinned out the growth on about two acres, removing more than half the number of trees, they being the smaller portion. The wood thinned out much more than paying the expense of thinning and draw

ing. Soon after, I sold the land, since which nothing has been done to it. I have, with the present owner, recently examined the lot; we were of the opinion that the portion thinned some twenty-five years ago, is now, from the superior size of the trees worth 33 per cent. more per acre, than that portion left to itself Can any one doubt, that the limbs and tops of the removed trees, and the decaying stumps and roots of those cut out, with a free access of sunlight and air, has not very much increased the growth where thinned out, over those "left to struggle, from the excess of numbers, for the mastery? Many of the vanquished have died, while the victors have suffered severely from the effects of the struggle." I sold the land for ten dollars per acre; the present owner has recently refused one hundred dollars per acre for it. Had he judiciously thined out the trees from the time he purchased it, till now, he might have (without injury to its present worth,) taken from it enough to have paid the interest on his purchase and taxes. I have thinned out the growth of hard wood trees with results similar to the above described.

L. Bartlett has at our request kindly furnished us with a number of additional particulars, which cannot fail to be interesting to our readers:—

1. "What was the size and height of the young trees, at the time they were thinned?" It is some 25 years since I thinned the growth, so that I do not recollect particularly as to either. I cut a few of the longest about that time, for *rafters* for a shed, only *hewing* one side; they were about 8 inches in diameter at the stump. Probably they were 40 or 50 feet high—i. e. the tallest of them, [being 25 years from seed.]

2. "What was the size and distance asunder, after the lapse of 25 years mentioned?" I went on to the lot, with the present owner, about two weeks since; we judged that if the trees were equi-distant over the two acres thinned out, they would stand at the distance of from 6 to 8 feet. These are mostly Norway pines, straight and beautiful as cane poles, from 80 to over 100 feet high, and from 10 to 18 or 20 inches diameter at the stump, [now about 50 years from seed.] We thought the portion thinned out was worth 33 per cent. more (for timber) than the unthinned part. The present owner has refused $100 per acre for the wood and timber. I presume it is worth (the large trees) much more for timber, than for wood.

3. Judging from your account of your "timber land," I should let the trees, from "8 inches to a foot," remain, and encourage the growth of seedling trees and sprouts from the roots and stumps, and hereafter thin-out as would seem necessary. As far as you may require for fuel and timber, to supply your annual wants, perhaps it might be the better way to cut "all down," and suffer a new growth to start on an equal footing.

4. What is the most profitable period to cut off a growth of timber for fuel, and how many cords annually may be expected from 10 acres, &c.? By referring to different authorities, I find a great difference of opinion. In France, 18 years is the period the *law* allows the owners to cut over their woodlots (There fuel is sold by the pound and ounce.) The late Mr. Colman cites in one of his Reports, the opinions of many farmers in Massachusetts, who give the time from 20 to 30 years to cut off the entire growth for fuel and charcoal. However, circumstances, in different locations, must prevent any fixed rule in this matter.

Mr. C., in his 4th Report of Mass. Agriculture, gives statements of several farmers in reference to the growth of wood. "F. Loring cuts once in 15 or 20 years—(oak wood)—gets 30 cords per acre." Another states "that a thin or exhausted soil will give 25 cords in 25 years; and that good land in 30 years will give 50 cords to an acre." "E. Parker of Reading, sold 40 acres of woodland, on which the wood was of only 20 years' growth. The whole lot averaged more than 40 cords to the acre."

5. "What kind of trees would be most profitable and rapidly growing?" Soils are so different here in consequence of past geological disturbances, and the action of past diluvial agencies, that a 20 acre lot frequently consists of soils adapted peculiarly to the congenial growth of almost as many kinds or species of trees. One side of a small stream is occupied with a dense growth of hemlock—the opposite, with maples, beeches and ash. Another location near by, will be occupied by a growth of white or Norway or yellow pine, and close by, oaks will predominate. Other soils are favorably adapted to a great variety of trees, which seem to all flourish equally well. I cut the entire growth from an acre of low, moist, wet land, twelve years ago. Cattle and the fire have been kept out. A great variety of trees sprang up from stumps, roots and seeds—most of them from 25 to 35 feet in height. I have lately examined them, and am unable to tell, of several varieties, which take the lead. If left to themselves, eventually some species will probably take the lead of others. This autumn I intend to give the lot a *thinning*.

Four years ago last December, I cut from an acre or two, the maples, beech, birch, &c. from my wood lot—the growth probably about 70 years of age. They grow very thick and tall—50 and 60, and some more feet from the ground to the first limbs. The *white ash trees*, were left for timber, being from 20 down to ten inches diameter near the ground. They now stand twice, or more, as thick as Mr. Fay's rule; but *new* limbs are starting out from within 10 or 15 feet of the ground, up to the original limbs, and they will soon be useless for carriage timber, rakes, snaths, &c. Some hundreds of dollars worth I have sold for these purposes in past years.

Some 6 years ago, a railroad was built from Concord, N. H., through this town. It opened a market for wood and timber of every description, and within the last 4 years upwards of $100,000 worth of wood and timber land has been bought up on speculation by a few individuals in this *town*. French Canadians, in large numbers, are employed to chop cord-wood the year round. They camp in the woods, and the havoc they are making with our forests, it makes one sad to think of. This "de'il take the hindmost" policy, as our friend Fred. Holbrook, terms it, will be visited with a vengeance upon those that shall come after us, even to the third and fourth generation. The future high price of fuel, timber, lumber, &c., will have a most deleterious effect upon the future well being of our common country. If these denuded wood lots, could be left to produce another growth, it would in some measure mitigate the evil, but the proceeds of a *burnt-land* crop of rye, can be transformed into dollars quicker than a growth of trees can be reared."

In a subsequent letter from L. Bartlett, the following valuable additional information is furnished:

"I forgot to say in mine of 18th, that, upon that portion of the lot not thinned out years ago, there is now large numbers of dead trees, and great numbers of stinted trees, not larger than a man's wrist. These are of the same age as the very largest on the lot. All this while they have been in a starvation state—struggling for a bare existence; had they been cut out 25 years ago, their decaying stumps, roots and limbs would have afforded *food* for those left standing, and the growth of trees on the lot would have been far more valuable than it is now.

"My observation has taught me that care should be taken in thinning out a wood lot, to be *sure* of leaving the trees thick enough to completely shade the ground, and thereby prevent the grass and shrubs from springing up. Another important requisite, is, to suffer the limbs on the outside tier of trees to grow from the *ground upwards*. This breaks the force of the winds, prevents the fallen leaves from blowing away, causes a more equable temperature, and a more humid atmosphere, than if the winds had a full and clear sweep, as would be the case, if the trees upon the borders of the lot were trimmed off to the height of ten, or more feet."

According to *Allen's Farm Book*, the Salisbury Iron-Company has several thousand acres of land, which have been reserved exclusively for supplying their own charcoal. After sixty years experience they have ascertained the most profitable period for cutting to be once in about sixteen years. It has been found that this yielded a full equivalent to an annual interest on $16 to $20 an acre, which for a rough and poor soil, remote from a wood or timber market, pays as much as the net profits on cultivated land in the same neighborhood.

According to one of the statements of H. Colman, already quoted, 20 years growth gave 40 cords per acre. We are not informed that this was managed in the best and most profitable manner, nor of the fertility of the soil; yet at this rate, a ten acre lot would furnish an annual supply to a family of twenty cords per annum. According to the statement furnished us by Levi Bartlett, there were pine trees of 50 years growth, 80 to 100 feet high, 10 to 20 inches in diameter, and standing 6 to 8 feet apart,—the trees having been thinned out and having received the best treatment. If there is no mistake in this statement, there would be about *three hundred cords per acre*, for every two trees on an average, would make a cord of wood, supposing them to average 13 inches 64 feet high, and 8 feet apart. This estimate may be from too high data, but if only half that amount, it would show much in favor of proper management.

By counting the annual rings, it has been found that all the larger forest trees of western New-York are much over an hundred years old; but if we estimate their average period of growth, at one hundred years, and an acre as affording sixty cords of wood, it would require 33 acres to keep up a perpetual supply for a family consuming 20 cords per annum, or more than three times the extent of land in the case cited by H. Colman, where the growth was cut at twenty years.

This subject is one of the deepest interest to every landowner, and especially to every patriot, and those who do not wish to overreach posterity, and deprive the next generation of the materials for fuel and timber, should make ample provision for a full supply in future, by setting apart a portion of their grounds for well managed forests.

Anbury or Finger and Toes in Cabbage.

Messrs. Editors.—I herewith enclose part of a cabbage root for your examination, and would ask you or any of the correspondents of the Country Gentleman for the cause and cure for such growth. In this vicinity we are very much troubled with the disease, if it is a disease,—so much so, that we shall have to give up the cultivation of cabbage entirely, unless a preventive can be found. I have not been troubled with it until within 3 or four years past. I have this year about 1000 plants cabbage, and I think that I shall lose full one half of them. The sample sent is taken from a root where all the small roots are enlarged. Some of them will be one large bulb without any out shoots. Last year my driest land was the least affected by it. This year it is the reverse. If some preventive cannot be applied, cabbage in a few years, cannot be grown about here at all. Julius Chapman. *Simsbury, Hartford Co., Ct., Aug.* 9, 1855.

The disease referred to is evidently that known as Anbury, or Finger and Toes. So far as can be ascertained to the contrary, cabbage have always been liable to it. It also affects the turnip plant; so much so, indeed, that it has been estimated in Scotland that the loss to the turnip crop is 10, 20, 30, and in some instances even as high as 40 per cent. It has recently been the subject of a very extensive scientific and practical investigation by Prof. Anderson, Chemist to the Highland and Agricultural Society of Scotland. Several soils on which diseased and healthy plants had been produced, were analyzed, *but no difference was found in their chemical composition*. A number of diseased and healthy plants were also subjected to minute and careful analysis, but no very important facts were brought to light. All the diseased bulbs contained much more dry or solid matter than the healthy ones; in some cases, *twice as much*. The amount of ash or mineral matter was also much greater in the diseased than in the healthy turnip, not only in the fresh, but also in the dry matter. There was also more nitrogen in the dry matter of the diseased than in the healthy bulbs. The quantity of *common salt* was, with one exception, much larger in the healthy than the diseased plant; in one instance the ash of the former contained 14 per cent, that of the latter only 5 per cent.; in another instance the ash of the healthy plant contained 22 and that of the diseased only 14 per cent of salt. It is quite probable, however, that these differences of composition are the *effects* of disease and not the cause of it.

Although, in the language of Prof. ANDERSON," the chemical composition of the soil has no effect on the development of the disease," yet its mechanical state or condition " appears to influence in a remarkable degree the amount of disease." It would appear that light, sandy soils are those in which this disease makes its greatest ravages. Mr. Cooper of Stenton, states that the disease was uniform all over one of his fields, *except where there was a mixture of clay*, and in these spots the crop was partially sound. MARSHALL, in his *Rural Economy of Norfolk*, although he appears to have had little confidence in the statement himself, mentions that many farmers thought " marl " a " certain prevention " of this disease.

It would appear that while loose and open soils are most liable to this disease, much treading of the soil, which compresses it, and might be expected to diminish its ravages, has an exactly opposite effect. Many proofs of this are given; we will instance one: " A very remarkable instance of the same sort," says Prof. ANDERSON, " was pointed out to me on the home farm at Dargavel, where a road, which had been newly repaired, ran along the side of a field, and the passers by, to avoid its roughness, formed a path by its side. When the field was sown to turnips, every bulb on the part so trodden proved diseased, while the rest of the crop was sound." Similar phenomena are mentioned, and it is a matter of general observation that headlands are always most affected.

In general, barn-yard manure is stated to produce less disease when well rotted than when applied in the raw state.

Mr. SANDERSON of Meigle, applied 6 cwt. of common salt to a field in which the disease had been very bad during the two previous rotations, leaving a small part of the field unsalted for comparison. On this portion, the turnips were all diseased, while on the salted part very few were affected.

In regard to the effect of *lime*, the evidence is very contradictory. "It may on the whole, however," Prof. ANDERSON writes, " be concluded that the use of lime in considerable quantity has a decided effect." Some speak of it as a " complete preventive " of the disease; that it is not invariably so, however, there is abundant evidence.

We are as much in the dark in regard to the cause of the disease as ever. It has usually been attributed to the agency of insects. CURTIS, author of the "British Entomology," however, says: " Now that these subjects are becoming better understood, from the investigations of men of science, it appears that insects are the consequence and not the cause of anbury." He thinks it is owing to bad cultivation, and that it is becoming less every year. "It does not," he says, " occur on well drained soils, when the culture of the land, as well as that of the crop, are properly understood and practiced."

From a review of all the evidence, however, although we have great respect for Mr. Curtis' opinion, we are inclined to believe that the disease is *caused* by an insect. Cabbage plants are frequently infected in the seed bed, and this incipient infection appears in the form of a gall or wart upon the stem, immediately in the vicinity of the root; if this wart is opened it will be found to contain a small white maggot. It is said that if the gall and its tenant are removed and the plant is placed in the soil where it is to remain, unless it is again attacked, the wound usually heals and the growth is little retarded. On the other hand—if the gall is left undisturbed, the maggot continues to feed upon the young woody part of the stem, until the period arrives for its passing into the other insect forms previously to which it gnaws its way out through the exterior bark. The disease is now almost beyond the power of remedies; the gall increases in size, encircles the whole stem, and the alburnum being so extensively destroyed retards the ascent of sap and the warts or excrescences of the roots increase rapidly. The fibrous roots, besides being thickened, are distorted and monstrous from swellings which appear throughout their length, and which apparently " arise from an effort of nature to form receptacles for the sap," deprived as it is of its natural spissation in the leaves.

The general experience of farmers and gardeners testifies that this disease usually attacks cabbage and turnips when they are grown for successive years on the same soil, and this is precisely what would be expected if the disease is caused by an insect; for " the parent insect always deposits her eggs in those situations where her progeny will find their appopriate food," and in the fragments of roots of preceding crops, some of those " round, reddish-colored, hairy worms," as Mr. CARNEGIE describes them, are to be expected. Nevertheless we must admit there are exceptions to this rule. One of the worst cases of disease mentioned in Prof. ANDERSON's investigations, was on a field where turnips had never been grown before; and in the Rothamsted experiments, where turnips have been grown year after year on the same land for a dozen years, we do not recollect to have seen a single case of finger and toes. The soil is a rather heavy clay soil; the very reverse of what is known as a good " turnip soil," and which is most liable to the disease. These cases only prove, however, that rotation is not a certain preventive, and that successive crops on the same soil is not invariably followed by disease; the conclusion that it is generally advantageous to sow cabbage and turnips on fresh soil is no doubt correct.

The plan we should advise our correspondent to adopt to guard against this disease as much as possible would be as follows: Sow the cabbage seed early, on fresh soil. When the plants are two or three inches high, transplant them to another bed, recently prepared, examining the stalks of the plants, and if any are found exhibiting indications of having been stung on the stem, throw them away. If they could be again transplanted before the final setting out, it would be so much the better. By frequent transplanting, strong stocky plants are obtained, and you have a good opportunity to reject all that are diseased. In nine cases out of ten, we believe the mischief is done in the seed bed, and it is, therefore, very important to attend carefully to its preparation and to the management of the young plants. If the land where the cabbage seed is to be sown in the spring, was dressed in the fall with quick lime, say a bushel to the square rod, and well incorporated with the soil ten or twelve inches deep, we believe it would prove advantageous. Half a peek of salt to the square rod applied in the fall, with or without the lime, would also be likely to do good. Throwing the soil into ridges in the fall so as to expose it to the ameliorating and insect-destroying influences of frost might also be adopted.

We shall be glad to hear the experience of our readers with this disease. It is said to be unusually prevalent and destructive in many parts of the country this season.

Young or Old Cows for the Dairy.

Messrs. Editors—Which do you consider the most profitable for making butter and cheese, young, old or middle aged cows? Which is the most profitable breed? How many cows can I keep on a farm of two hundred acres, mostly in grass? Is it better to breed your own cows or to buy them? I am a new beginner, and shall be glad if you or some of your correspondents, will condescend to enlighten my ignorance on these and other matters connected with Dairy Husbandry. D. W. *Lewis Co., N. Y.*

We hope some of our Lewis county subscribers—than whom there are no better dairymen in the world—will give our young correspondent the information he desires.

It is we believe usually considered that the younger the cow the richer the milk, but it is less in quantity. Supposing the cow to come in at three years of age, and to have a calf each year in April or May, she would be in her prime—as regards quantity and quality of milk—the second and third years after. As a general rule, it is not advisable to keep her in milk past her eighth or ninth year. After this age her milk deteriorates in quality; she is worth less for the grazier or butcher, and consumes more food, especially in winter. Of course there are favorite cows that will always be kept longer than this, but as a general rule it is not profitable to keep cows over nine years old.

The number of cows that can be kept on a given number of acres, depends on the fertility of the soil. In the vale of Gloucester, with the weeping skies and mild climate of merrie England, 25 cows, at least, are ordinarily kept to the hundred acres, besides the usual number of young stock reared to maintain the full complement of cows giving milk. Your neighbors, knowing the quality of your land, will be able to advise you on this point. It is better to under than over stock, although in the latter case the grass is coarse and ill-flavored, enough so frequently to impair the quality of the milk.

The question as to the most profitable breed of cows for the dairy, is one which has not received the attention it deserves, either from importers or professional breeders. No effort has been made that we are aware of, to procure or produce a breed peculiarly adapted to the dairy districts of the country. Our correspondent cannot, therefore, under present circumstances, do better than to make a judicious selection from what is called the native breed, combined more or less with crosses of Durham, Ayrshire, Devon and Hereford blood, and upon these our dairymen must mainly rely, until some public spirited breeder, realizing its importance, shall raise up a breed more especially designed for this purpose.

Dwarf Pears.

We have repeated and almost constant inquiries in relation to the value of the pear on quince stocks. "Are dwarf pears going to answer? Are they not a humbug? Are they as good as standards? Would you rather have a tree on pear or quince root?" These are some of the questions that are continually asked; and the conflicting answers that are given do not help to clear up the subject.

Yet it is a very simple one, and very easily understood when cleared of the fog which partial observers and interested persons have thrown around it. To say which is best under all circumstances, would be like attempting to answer the question, "Do you think the watermelon as good as the strawberry? Shall we not confine ourselves hereafter to the best of these two, and discard the other as a humbug?"

Dwarf and standard pears are each excellent in their places. The standard pear, as a general rule, grows to be a much larger tree, requires more time, needs more room, ultimately bears much more per tree, will endure more neglect, and in most cases live to a greater age. The dwarf will come sooner into bearing, will occupy less space, and will not bear neglect, but requires good cultivation. We are not sure but the last quality is a positive recommendation; for planters certainly need the stimulus of necessity to induce them to take better care of their trees. A standard will indeed grow and bear under ordinary circumstances; but give it the best chance, and the fruit will be so much improved, as sometimes to be scarcely recognized. The dwarf is emphatically the tree for THE GARDEN, where two hundred may be planted on a quarter acre, instead of but twenty-five standards, and where no difficulty exists in giving them the best soil and treatment. Those who are about occupying new places, may secure for themselves a supply of fruit in two or three years by planting three year dwarfs; and pomologists may get the fruit of new kinds the first or second year.

One leading reason why some have pronounced dwarfs a failure, is the attempt to raise *too many kinds* on the quince. There are a few sorts that are entirely at home on this stock, and are always seen in a flourishing state, under anything like favorable influences, among which sorts may be mentioned Louise Bonne of Jersey, Duchess of Angouleme, Glout Morceau, and Vicar of Winkfield, trees of which, twenty or thirty years old, are now productive and vigorous, and will probably live to a hundred. Some of these, and especially the Jersey and Winkfield, seem to grow well on almost any kind of quince. But all do best on the French stock, and this only should be used. The Angouleme, appears to be the hardiest dwarf under neglect. We have just examined an orchard of these, about nine years planted, which until the present year, had been almost totally neglected for five or six seasons, and enveloped in weeds and grass, and growing on a hard stony soil. The present season they have been cultivated but not manured, and they all show a thrifty appearance, and are bending under their loads of magnificent fruit. The trees are about two and a half to three inches in diameter, and stand erect, although allowed to run up as standards, with no pruning. They bore very little while neglected. As a proof of their superior hardiness, all or nearly all of those originally planted are flourishing, while other dwarfs, interspersed, have nearly all died out from neglect.

There are several sorts of the pear, that usually do well and live long on the quince, if enriched and cultivated annually, but not otherwise.

Partial experiments often lead to erroneous opinions. One acquaintance has denounced dwarfs, because, having an admirable soil (a strong clay) for standards and a very poor one for dwarfs, he has been eminently successful with the former, and failed with many of the latter. Some others have soils on which dwarfs only will succeed well, and they consider them as far preferable to standards. Seasons, also, sometimes have an important influence. Many years ago, a hard winter destroyed many young standards, while the dwarfs escaped. At a later period, another winter spoiled a portion of the dwarfs while the standards were uninjured. All these and many other considerations are to be observed in drawing general conclusions.

Passages from a Farmer's Note-Book.

—— It is one of the rules of our *Mutual Improvement Club* that each member shall make a brief statement, at each monthly meeting, of some addition which he has made to his stock of useful knowledge since the previous meeting. If his own observations or reflections or experiments should not have furnished to any member material for the required communication to the Club, then he might present, as his monthly contribution, whatever might appear to him among the most valuable of the acquisitions which he had made to his previous stock of knowledge, from the reports or statements of others, whether made in conversation or communicated through some agricultural paper. By this requirement of our Club the minds of all the members are kept alive and active, and on the alert, to use a military phrase, to discover something worth communicating, which may have somewhat of novelty as well as utility to make it interesting. A similar practice in other Agricultural Clubs, Societies, or Circles, might do much to make each member wide awake, and to form habits of observation, reasoning, estimating evidence, and testing theories or proposed general principles, which are of the utmost importance to successful and satisfactory husbandry. If every farmer throughout the country were stimulated by such a requirement, or in any other way, to keep his mind ever active and on the watch, that he might have, once a month at least, something well ascertained and practically useful, to communicate to his agricultural brethren, at a club-meeting or through the press, then, certainly, agriculture in all its departments would advance much more rapidly than it has ever yet done, and much of the reproach which at present attaches itself to farmers, on account of a supposed general dulness and sluggishness of mind, would soon be wiped entirely away.

—— All that is necessary to make advances in agriculture is simply to do one or more of these three things;—1. Observe accurately; 2. Reason, theorize, or draw inferences from observations made by yourself or others, correctly and logically; and 3. Put your inferences or theories to the test of well-planned experiments. Almost every farmer can do one or all of these; and the doing of one or more of these, and communicating the results to others, is all that is necessary to elevate a man to the dignity of that class who are entitled to the most honorable of all names--the *World's Benefactors.* Yes, each man who cultivates a habit of observing the phenomena of the vegetable and animal kingdom so far as they come under his observation on a farm;—who cultivates a habit of drawing general truths from particular facts by correct processes of reasoning, theorizing, or drawing inferences; and who puts all his inferences or theories to the test of some experiment which will detect errors or defects if any such exist in the theories tested;—the man who does all these, whose mind is ever active in some such employment, and who freely communicates to the world the results of his observations, reasonings, and experimentings, is justly entitled to be ranked among the advancers of useful knowledge and the benefactors of the world, as they who so do will leave the world, when they pass on to other spheres, a good deal better than they found it. The foregoing is the substance of what was said, at our Club, to some who thought they could not contribute anything to the common stock of useful knowledge.

—— A case was reported at our Club of a field having been devoted for 8 years to raising wheat and clover alternately without any diminution of fertility. We stated it as our impression that there might be found in the agricultural papers a large number of cases in which clover had been made, not merely to keep up the original fertility of lands, but even to increase that fertility. As there seems some considerable incredulity on this point, and as the general practice in the neighborhood does not conform to this fact of the fertilizing powers of clover alone, we propose to hunt up, and present to the Club a synopsis of as many such cases as we can find. Perhaps we may lay that synopsis before the public as there are doubtless some even among the readers of agricultural journals who do not practice as if they were persuaded of the value of clover.

But what was fully more surprising in regard to this matter, was the general ignorance of the *mode* in which clover proves useful to the soil. Few seemed to be aware that the clover plant draws much of its material from the subsoil, and more still from the atmosphere, and when clover is plowed under it deposits in the surface soil both the inorganic and the organic constituents derived from the above sources, and in this way enriches the soil. Few seemed to be aware that a large supply of carbonaceous matter was obtained both from the roots and the plants plowed under, equal probably to what would have been obtained by burning both in a close vessel or charcoal-pit, by which the soil is rendered darker in color, and more capable of retaining fresh quantities of ammonia from the atmosphere. Some could not believe that clover did as much good as was claimed for it, for the very logical reason, that they could not see *how* it could do it. Perhaps there are others who cannot see *how*, to whom these hints may prove of some use. ARATOR.

Mexican and Chilian Guano in England.

We have received a long and interesting letter from one of our English subscribers, dated Liverpool, July 27th, 1855, for which he will please accept our thanks. We give the following extracts in relation to the Chilian Guano Fraud, which, MAPE's assertion to the contrary notwithstanding, would seem to indicate that Messrs. SHELTON & MAPES have been endeavoring with true cosmopolitan philanthropy to extend their pious labors to our worthy cousins across the water. Whether they will like being *deceived for their good*, any better than the ungrateful farmers of this country remains to be seen.

> I have read your articles on the "Chilian Guano Fraud" with much interest. Your remarks in relation to the frequency of guano adulteration in this country are not very flattering, but I am sorry to be obliged to confess, mainly correct. Doubtless, as you observe, your numerous and largely circulated agricultural papers tend to keep these villains in check, though I gather from the last *Country Gentleman* that the perpetrator of this fraud is himself an editor. * * You intimated that some of this manufactured stuff had been sent over here; I believe you were right, and that I have discovered the article. T. R. ARNOTT, of this city, having advertized Mexican and "Bird Island" guano, I was induced to give him a call. He presented me with the following analyses;

Mexican Guano, ex. "Mariner."

Organic matter, containing ammonia, ...	6.50
Phosphate of lime and magnesia,....	37.25
Carbonate of lime,........................	40.00
Chloride of sodium and sulphate of soda,....	15.00
Moisture, ...	1.15
Sand,.....................................	0.10
	100.00

Signed Newton Samuelson, F. C. S., Liverpool, 5th July, 1855.

Bird Island Guano, ex. "Urgent."

Azotized organic matter, with 6 to 6½ per cent. fixed salts of ammonia,............	22.00
Phosphate of lime,........................	45.60
Carbonate of lime,........................	10.40
Fixed alkaline phosphates,................	1.00
Fixed alkaline sulphates and muriates,......	3.50
Water, ...	14.00
Sand, ...	3.50
	100.00

Signed George C. Huson, Liverpool, June 8, 1855.

> Mr. ARNOTT told me that the former came "*direct from Mexico*," and that the absence of ammonia was owing to the rains in that part of the country. I then went to the "Mariner" and found that she *came direct from Boston*. She had a load of about 500 tons of guano, in bulk, which the mate said they received at Boston, *and not from another ship*. He could not recollect the name of the shipper. The price asked for it here is £3 7s 6d per ton, in quantity.
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> The "Bird Island guano" was offered me, a month ago, at £6 10s. per ton; to day, by the clerk (not knowing me) at £5. I believe it to be nothing more than the Mexican doctored in some way to give it a smell of ammonia. It smells quite strong at first, but when exposed for a day or two, it loses its humidity and ammonia, and looks exactly like the Mexican. Is not this the celebrated "Chilian" which you have rendered unsalable in the states, and which has consequently been shipped here to take in green Englishmen? * * Notice the wording of the analyses—"organic matter containing ammonia"—Query—How much? "Azotized organic matter, with 6 to 6½ per cent fixed salts of ammonia, 22." I suppose this means 6 to 6½ per cent of the 22 parts, but it is evidently so put as to lead to the belief that there is 6 to 6½ per cent of ammonia in the bulk. I wonder "chemical gentlemen" will do such dirty work. If 6 to 6½ per cent of ammonia in the organic matter is meant, it gives 1.3 per cent of ammonia in the whole, which agrees well with the amount you found, which if I recollect right was 1.06 per cent.
>
> I should think you might ascertain who shipped 500 tons of rubbish in the "Mariner" from Boston to Liverpool about two months ago. The Agent here has not sold a single ounce. I send you a sample of it by the "Baltic." I do not wish my name mentioned in connection with this affair, though I shall be pleased to hear from you as soon as possible, it it turns out on analysis to be the "Chilian guano," manufactured in the states.

Ice Houses.

If J. F. D. L. of Greensborough, Md., will refer to a late volume of the Cultivator, he will find the information he is in need of. Yet if his soil is not proper within any convenient distance from his house, he can build an ice-house like that now used by the contributor of that information, but not constructed by him. It is square—sunk into a pit with a drain from the bottom. The sides are double planked, and filled around between the planks and under the bottom with rail road cinders. (Powdered charcoal is more easily obtained, in most places, and quite as good, if not better.) The frame rises above ground six feet. The roof is pitched at an angle of 45° to each side. The gable end is to the front. The door is in front, 2 feet 8 inches from the ground. And there is a small square chimney ventilator opening from the roof. The ice keeps well in it—but it is unnecessarily expensive. However, on rock with clay earth, it may be the only kind that will answer a good purpose. H. *Saratoga Springs.*

The Horticulturist.

This eminently useful periodical, since its removal to Philadelphia, and under the auspices of its new editor J. J Smith, appears to have lost none of its value and ability. We find a great fund of information on horticultural subjects in its last number, a few gleanings from which will be interesting to our readers, and we trust advantageous to the publisher.

HEDGES—THE LEADER.

The editor furnishes some excellent and useful suggestions on this subject, in connexion with observations on the hedges on the grounds of Wm. Reid of Elizabethtown, N. J., one of the best cultivators the country affords, of whatever he undertakes. The Osage Orange, although highly commended, is regarded as defective on a few points,—namely, its want of dense growth, requiring great attention ; and its exhaustion of the soil for some distance on each side. Of the latter we have not had opportunity for judging satisfactorily ; but we are not sure but that the former may prove an advantage, for most of our cultivators need some practical necessity to teach them to cut back freely and frequently, without which no good hedge can ever be made. We have seen a four year hedge, four feet high and as wide at the bottom, that formed a perfect barrier between a public road and a garden, and which had been made impenetrably thick merely by shearing, and without the *interlacing* which the editor of the Horticulturist deems so essential.

The *Buckthorn* is highly approved for its hardiness, close growth, poisonous nature to depredators on its stem or leaves, and its easy propagation and planting. To which we would add, that it should receive *high cultivation*, to cause a sufficiently stout growth.

The *Honey-locust* is recommended as the best of any plant for *farm hedges ;* the trees being planted 6 inches apart, and, as an exception to the common rule, allowed to grow untouched four years; and then cropped at five feet high, thus forming a live fence of young trees, needing afterwards an annual shearing.

The *Privet* forms a beautiful hedge, being almost evergreen ; the *Japan quince* has been made into a "superb hedge," by Wm. Reid, who has about 400 feet in the highest perfection, and of close growth. The cost or scarcity of the plants will be a strong drawback on its general use.

The American *Arbor-vitæ* is pronounced the best for *evergreen* hedges ; and the *Hemlock* the most beautiful, but not strong enough to obstruct cattle. The *Juniper* is nearly its equal, but apt to get too thick and die out in places. The *Red cedar* does well for a time, but is apt to drop its lower leaves and become unsightly. We have known old and impenetrable *natural* hedges of the Red cedar in Western New-York, but they had never been sheared. The *Norway spruce* is recommended as the best for forming quickly a screen from the wind. The editor of the Horticulturist attempted to raise plants of the *Holly*, but obtained only seventy-five plants from a bushel of seed ; and he offers a fifty-dollar premium for the most perfect hedge of the American Holly, the plants raised from seeds of this year's growth.

THE HOWELL PEAR.

A fine figure of this pear is given, and a description furnished by P. Barry, the former editor. We have fruited this pear for several years, and our experience accords with those of the many cultivators here mentioned, in favor of its great productiveness and uniform fairness and size, which render it valuable, although not of the highest flavor. It is stated by P. Barry, that in 1854, a single graft set in an old tree in 1852, furnished "*three pecks* of magnificent specimens"—a fact almost without a parallel.

THE CURCULIO—HIS OLFACTORIES.

Henry Croft, of Toronto, C. W., details some experiments with repelling this insect by means of fœtid odors. Assafœtida accomplished nothing at all—the mixture of lime and sulphur (supposed to evolve sulphuretted hydrogen) was quite unsuccessful. But last year a lady tried sulphuretted hydrogen, evolved in quantity from the hydrosulphide of ammonium (hung in ounce phials, with twice its bulk of water, and renewed every two or three days) and the result was quite successful—the trees being loaded with fruit, while the unprotected had none. The same result we are informed, occurred with several experiments this year. "It is scarcely necessary to remark," observes the writer, "that the delicious scent of the garden is by no means improved by the process,"—as all will comprehend when we add, that sulphuretted hydrogen is agreeable to those only who like the scent of excessively stale eggs. The question arises, would not a free use of the latter be a cheaper way to evolve this gas ?

We should like to hear further results—our own experiments are not very favorable to the repulsion of the curculio by means of strong odors.

APPLE BORER.

The following method is proposed as a preventive for the apple borer.

> It will be an improvement to your process in resisting the Apple borer, if you cover the cloth which you wrap round the boll of the tree, on one side, with a mixture of one ounce of grease to two pounds of rosin. The cloth is placed with the rosin side outward, and overlapping ; the adhesive qualities will keep it in its place, and assist much in repelling the pest of our fruit trees. The process will be less troublesome than looking up the grown enemy with knife and crooked wire.

LUCY FITCH'S SEEDLING STRAWBERRY

Is pronounced by a correspondent at South Bend, Indiana, as a *four-fold* better bearer than Hovey, Early Scarlet, or Burr's New Pine. If it should prove so in Western New-York, it would constitute a prodigy, for limited beds here have repeatedly borne at the rate of 200 bushels or more per acre—800 bushels per acre would be decidedly respectable.

GRATTAN ON TREES.

A friend of Grattan proposed to cut down a fine old tree "because it stood in the way of the house." "You mistake," said Grattan, "it is the house that stands in the way of the tree, and if either must come down, let it be the house."

The Largest Nursery in the World.

It has been some years since Rochester has become the head quarters for nurseries in America. From only a few acres in extent, as they existed fifteen or twenty years since, the nurseries within ten miles of the city now cover at least one thousand densely planted acres.

The cost and annual product of these nurseries may be reckoned with some degree of accuracy, by taking as the basis of calculation, the estimates of several intelligent nurserymen of that place,—that a *well managed* acre would yield as an annual average from two to three hundred dollars—the expenses varying from fifty to seventy-five per cent of this amount. It would of course be greatly controlled by the kind of trees raised, the proportion of ornamentals, &c., but still more by the judgment, energy, and skill exercised by the manager,—for under the direction of some, the cost exceeds the profits, and the business consequently soon comes to an end.

But it is not our present object to pursue this inquiry, but to give to our readers the results of a few hours personal observation of one of the establishments to which we have alluded,—namely that of ELLWANGER and BARRY, who now have about *two hundred and seventy-five acres* actually occupied with their nurseries. These are not all in one contiguous piece of ground, but are comprised in four principal detached portions, of fifty to a hundred acres each, lying near each other. For extent and perfection combined, there is none in America that nearly approaches this establishment, and we have not been able to ascertain from satisfactory sources, that there is any in Europe—although there may possibly be a greater number of hands employed in some European nurseries, where labor is cheap and economy not studied.

Ellwanger and Barry had in regular employ at the time of our visit, over one hundred hands. In the spring, they have two or three huudred. Being in the midst of the budding season, they had sixteen active budders at work, with boys to tie after them, and other hands to precede them in preparing the stocks. These, added to such as were occupied in providing the buds, and in removing the ligatures, amounted to about *sixty* in all, connected with this department of operations. The buds are all cut by the proprietors themselves, and every pains taken to secure the greatest accuracy throughout this mammoth establishment—about twenty five thousand buds are inserted daily; and eight persons are required in connexion with the persons who cuts the buds, to remove the leaves from them on the spot.

They employ twenty five horses. During all the early part of the season, these were all required in cultivating the rows—at present only eighteen are needed for this purpose.

We observed *single fields*, of thirty or forty acres each, out of the many which constituted their establishment, which alone would be regarded as large for an entire nursery. A block of ninety thousand (90,000) cherry trees, one year from the bud, was especially noticed for its beautiful growth, most of the trees being already about five feet high, and as even along the tops, as if they had been sheared. A half acre of seedling pears, had as fine a growth as any we have ever seen, although they numbered at least one million. They must be worth at market prices, more than ten thousand dollars. Two hundred thousand were picked out from them early in summer, without any sensible diminution of their numbers. As nearly as we could estimate, there were at least two hundred thousand *Norway firs* two feet or more in height, and covering many acres.

Their ornamental department is on a very large scale. They have five hundred feet in length of glass propagating houses—seven acres in roses—and about half an acre densely planted with dahlias. They have a very rare collection of the celebrated new Californian tree, the *Wellingtonia gigantea*, being no less than five thousand fine young plants of this tree, grown from seed collected in California, and which were procured by gathering such as the squirrels had thrown down in their depredations. A year ago, these plants sold for a guinea each—at only one dollar now, here was a space of twenty feet square with a valuable farm.

In their grape houses, they have over ten thousand exotic grapes of fine growth for sale. Their collection of bearing specimen pear trees is unequalled in this country—they have five to six thousand, most of which are handsomely trained pyramids, comprising about four hundred sorts.

In such an immense establishment, our readers will naturally suppose there must be a great deal of confusion and much bad growth and bad cultivation. But the reverse is true in a striking degree. An excellent system appears to pervade the whole; and as many have remarked, they are remarkably successful in all they undertake, from the most delicate hot-house plants, to their vast plantations of large and thrifty fruit trees. Indeed there seems to be a sort of magic in all their attempts at propagation, so rarely are there any failures.

The reason of this remarkable success is their thorough experience and knowledge of the requisites for every operation, and an excellent soil, reduced to the best condition by subsoiling and constant tillage. A weed is a great rarity on their grounds.

The cost of conducting this establishment must of course be very great—although we have no definite information on the subject, we should judge from the estimates mentioned in an early part of this article, that they must amount to fifty thousand dollars annually. Their sales may be estimated from the same data, remembering that none are more successful, and that probably no nursery is better managed for pecuniary success.

There are several other nurseries at Rochester, of large size, which we were unable to visit—among which those of H. E. HOOKER & Co., FROST & Co., and S.

Moulson, are widely celebrated, each containing, as we have been informed, a hundred acres or more.

Since writing the foregoing, Ellwanger & Barry have, at our request, furnished the following statement of the number of acres occupied by each crop on their grounds.

Ornamental Department, 52 acres, viz:

Evergreens,	20	acres
Roses,	7	"
Flowering shrubs,	6	"
Magnolia seedlings in seed bed, thick,	1½	"
Miscellaneous trees, specimens, &c.,	17½—52	

Fruit Department, 225 acres, viz:

Standard apples,	37	acres.
Dwarf do	11	"
Pears,	64	"
Cherries,	27	"
Plums,	12	"
Peaches,	18	"
Apricots,	3	"
Apple quinces,	4	"
Currants,	4	"
Gooseberries 4, grapes 4,	8	"
Pear seedlings,	2	"
Sundries—seedlings, rhubarb, asparagus, raspberries, strawberries, quince stocks, &c. &c.,	35—225	

Mules in the Southern States.

Mr. Tucker—I see inquiries in the June number of the Cultivator, on the advantages of mules over horses for farm labor. Having been engaged in the business of mule raising to some extent, I can give my experience for what it is worth, without much trouble. The advantages of mules over horses are very decided, in almost every respect, in the slave states. Though more stubborn, they are more durable, stand the heat much better, keep in good order on less grain, are not half so easily frightened, and though they frequently run off with the plow or wagon, they seldom do much damage, as they only run from the lash, or merely to keep out of your way. They never appear to be frightened or scared like the horse, and most generally stop and go to feeding on the first green spot they find. This quality is a material consideration when the work is performed by careless slaves, or unprincipled hirelings, who work against time only for their support, without taking any interest or care for themselves or any one else. One other advantage is, they mature in about half the time the horse does, and need no currying nor half the shoeing of the horse, and are not liable to half the disease, and are much longer lived. They require about the same quantity of hay or rough food as horses, but will do quite as well on from one-half to two-thirds of the grain. They are much easier broke to the gear, and are scarcely ever known to balk—the more you whip him the more he pulls. As to fence breaking, that depends upon his raising altogether; once spoiled, there is no cure save that of constant use, which he thrives on. They are evidently adapted by nature for service, regular, and all the time if you choose. They are fond of company, and will not be confined in a pasture alone, especially while young, unless the fence be uncommonly good; and the habit of fence breaking once acquired, you had as well put him to constant use, if you have use for him, if not, sell him to those that have. I have known some cured by moving them to a new place; but constant employment is the best remedy.

The medium sized mules are best for service and endurance, all things considered, yet the larger the the more saleable. Were I to raise mules to sell, I would prefer the largest and tallest I could get; but for home use the medium size is preferable, not too large nor too small, with good proportions, not all legs, nor all body, but a reasonable proportion of both. Some have kicking propensities; this is partly owing to the stock; the colts of some jacks are worse than others; but, upon the whole, they are worse to kick than horses. They very seldom kick in the gear, unless they kick at something, and then they are apt to kick with pretty good judgment. The wildest colts are apt to make the gentlest and most tractable mules, when properly broke, whilst a very gentle colt may turn out to be stubborn, contrary, and often slow in motion. Upon the whole, we in the south could not well do without them, and the further south you go the more they are needed. G. *Claytonville, N. C.*

P. S. Can you, or any of your correspondents, tell the cause or cure for hogs' shedding their hoofs? It well nigh ruins them when they take it. And can you tell us what will cure a cow when swelled under the neck, or root of the tongue? The tongue often swells until the mouth is full and the tongue protrudes an inch or two out of the mouth. On examination after death, (and almost all die,) a hard swelling is found about the root of the tongue and throat—a solid, hard cake of flesh and matter.

Effects of Guano.

This region of country was but recently a waste of sedge fields. In my immediate neighborhood, land was sold, within my recollection, (I am not an elderly man yet,) at 4 to 5 dollars an acre. Similar land will now bring $30. Though in fact there is little similar land to be found, for most of it has undergone a wonderful transformation, and produces crops which would be satisfactory in 'the West.' Guano is the ordinary manure here now. Few farmers attempt to grow wheat without it, and most of us use it freely for corn, potatoes ruta bagas, and every thing else. Whether we can afford to do it or not, will be determined hereafter. On worn-out fields, its effect is magical. Nothing is easier than to convert a coat of sedge into a coat of clover, by a dose of guano, taking a crop of wheat to pay expenses. The Peruvian government have put up the price recently, which may have a good effect in compelling us to look to other sources of fertility, now too much neglected. Guano has done its work for many small farms. It has converted waste lands into good pastures, and filled the barns with provender. Those who have no 'old fields' left should look to their stock for the improvement of their farms. We cannot be forever tributary to the Peruvian government, and there is no reason why we should be. B. *Harford Co, Md.*

Foreign Correspondence.

Heidelberg—Rape, its Culture and Use—Beet Sugar—Cooking Vegetables.

Heidelberg lies on the Neckar, some miles above the confluence of that river with the Rhine. From the heights above the town the view northward and westward extends over the fertile Rhine and Neckar valley and the courses of the two streams may be plainly traced. The vegetation of this and the neighboring valley, was far more advanced at the date of my visit April 23, than that of Bavaria and Wirtemburg. The spring field-operations seemed nearly completed and winter crops were well up. My notice was particularly arrested by the winter rape (*Brassica napus-oleifera.*) I was astonished to find that while grass had attained at most, a height of 3 to 4 inches, this plant was 2 or even 3 feet high, and already in blossom. It is chiefly cultivated for the sake of the oil obtained from the seeds, which is one of the most common means of illumination in Germany. The oil has a pale greenish yellow color, is free from disagreeable odor, burns clearly, and is greatly preferable to whale-oil. The rape cake, or residue after the expression of the oil, constitutes a highly nutritious food, valuable as an addition to coarse fodder, especially for fattening animals. It has a peculiar taste which is at first disagreeable to cattle, but they shortly get accustomed to it, and learn to relish it. It is then equal in every respect to linseed-oil-cake. When there is a deficiency of food in the spring, the green plant is often used as fodder. This plant is said to be of easy cultivation, and appears worthy of extended trial in the United States.

The soil of the Rhine and Neckar valley is good, and the tillage is admirable. One of the chief productions of this country is the sugar beet, from which immense quantities of sugar are annually fabricated.

I have lately observed in our agricutlural papers, inquiries concerning the manufacture of beet sugar in the United States, viz, whether it could be carried on profitably there. In your columns, articles have appeared representing the success of the manufacture there as highly problematical. From what I can learn, these opinions are perfectly just. The fact that sugar costs considerably more here than in the United States, and that the production here is protected by duties on foreign sugars, sufficiently show the true state of the case.

In Europe field-laborers are abundant, and receive but small wages; hence the cultivation of the beet can be carried on very cheaply; besides, all other sources of a supply of sugar are distant. With us the matter is reversed, labor is dear, and the sugar cane is grown profitably in our southern states. The extraction of sugar from the cane is a simpler process than its preparation from the beet, and it is a well ascertained fact that as much sugar is yielded by a crop of beet roots of moderate size and medium weight, as when the roots are of mammoth dimensions. In fact beets are not bought by the manufacturers by the bushel or by the ton, but by the acre, or if bought by measure, the price paid diminishes in proportion as the yield exceeds a certain limit. The cane furnishes itself the fuel necessary for the evaporation of the juice, while the beet does not. The farther north the cane is cultivated, the less sugar and the more salts are contained in its sap. The presence of salt diminishes again the quantity of crystalized sugar obtainable from the sap, since, in their presence, the sugar is converted into molasses, during the processes of manufacture. In tropical countries the most beautiful sugar is often obtained directly from the juice of the cane without any purification and without the formation of molasses. To the north, as in Louisiana, the quantity of molasses formed during the manufacture (it does not exist in the fresh juice) is very considerable, except when the most refined methods are employed. Finally, other things being equal, still more loss occurs in making sugar from the beet in colder climates, and, in fact, it is well settled that beets or cane grown on new soil, rich in salts of potash and soda, or upon fields which receive much of these substances in manure, contain less sugar, and yield less of what they do contain in the crystallized form, than when raised on poorer soils. Hot climates are best adapted to the production of sugar from the cane, and doubtless the sugar beet would yield a juice richer in sugar, more free from salts and fermentable matters, and therefore better adapted for the production of this indispensable article, if cultivated further south than has hitherto been the custom. Whether the culture of the two plants might not be combined, is a question to which I invite the attention of our Planters.

It is by no means impossible that a proper combination of enterprise, capital, and Yankee ingenuity, under scientific guidance, might establish the beet sugar production on a profitable basis in our western country where lands are cheap; for the processes of manufacture are still very imperfect, and doubtless chemistry, which has been mainly instrumental in bringing the business to its present advancement, can surmount the existing difficulties.

I conclude with a translation of a note by Prof. Boethger, of Frankfort, " On the Influence of Water in Cooking Vegetables," which I find in an agricultural paper:

" If one portion of vegetables be boiled in pure (distilled or rain) water, and another in water to which a little salt has been added, a decided difference is perceptible in the taste and odor, and especially in the tenderness of the two portions. Vegetables, boiled in pure water, are vastly inferior in flavor. This inferiority may go so far, in case of onions, that they are almost entirely destitute of odor or taste, though when cooked in salted water, they possess, in addition to the pleasant salt taste, a peculiar sweetness and a strong aroma. They also contain more soluble matter than when cooked in pure water. Water which contains 1-420 of its weight of common salt, is far better for cooking vegetables, than pure water, because the salt hinders the solution and evaporation of the soluble and flavoring principles of the vegetables. This explains the advantage of the general use of salt in cooking, and the impossibility of correcting by subsequent additions of salt, the want of flavor in vegetables that have been boiled without it." Samuel W. Johnson.

Domestic Economy.

Remedy for the Bite of a Mad Dog.

While on a tour recently in the vicinity of the Ottawa river in Canada, we frequently heard it said that there was no difficulty in preventing the usual fatal results from the bite of a mad dog. It was said the remedy had been long known and administered with invariable success by many of the Catholic clergy throughout the Lower Province. Having ascertained that the Rev. John Edwards, Baptist minister at Clarence and Petite Nation, could furnish the recipe, we applied to him, and he has favored us with the following:

Luther Tucker, Esq.—I send the annexed recipe for insertion in your valuable paper, hoping it may meet the eye of any individual who should have the misfortune to be bitten by a mad dog. Of its efficacy to prevent Hydrophobia, I have the fullest confidence, having seen persons when bitten, who took the remedy, and no harm followed, whilst animals bitten by the same dogs, died raving mad, or were killed to prevent mischief.

A gentleman of undoubted veracity, from whom I obtained this recipe 20 years ago, assured me that he had known it to be used successfully in at least 20 cases where there was not a doubt as to the madness of the dog inflicting the bite, nor of the entire exemption from any serious consequences to the person bitten, after following this prescription.

I would add that while many instances have come to my knowledge of persons having been bitten by mad dogs, in this part of the country, I never heard of a single fatal result; which I am satisfied must be attributed to the knowledge of the above remedy. Jn. Edwards, *Baptist Minister, Clarence and Petite Nation, Ottawa River, Canada.*

Recipe.—Burn oyster shells to lime; pulverize and sift through fine gauze or muslin: put two tablespoonfuls (heaped) into a vessel; mix with eggs to the consistency of cream or butter for pancakes, and fry in a pan with a good sized piece of fresh butter or some sweet oil.

Let the person, as soon as may be after being bitten, eat this cake, in the morning, and taste neither food nor drink for six hours, when he may eat and drink as usual. Three such cakes to be eaten *as above*, on three alternate mornings.

This is for an adult; the quantity for a child may be administered according to age.

Elder Wine.

Pick the elder berries from the stalk, and to every gallon of the fruit add one gallon of water, having first mashed the fruit. Let this liquor stand and macerate three days; then put them into a large pan or copper, to boil; when the fruit has boiled an hour, or until quite soft, strain the liquor through a sieve, and to every gallon add three pounds of moist sugar, some cloves, allspice and ginger, and boil three-quarters of an hour. Pour into a puncheon or pot, and when milk warm, toast a piece of bread, cover it with yeast, and put it into the liquor, and allow it to work for a day or two. Then put it into a barrel or bottles, leaving them open for awhile, until the violence of the working has subsided; afterwards fasten up. It is fit to drink in a month. Peter Sidebotham. *Valley Falls, R. I.*

Receipt for Making Rice Bread.

One and a half pounds of rice put in a gallon of water and stirred till it becomes quite soft, then mix it while warm with fourteen pounds of flour, and at the same time add a teaspoonful of salt and the usual quantity of yeast. Let it stand to rise, then make it into loaves and bake it the usual way. We have found the above quantity of flour and rice to make us twenty-eight pounds of excellent bread, and independent of the great saving, we like it better than bread baked in the usual way. John Sillett.

◆

A Certain Cure for a Rattle-Snake Bite or Spider Sting.—Take the yolk of a good egg, put it in a tea cup, and stir in as much salt as will make it thick enough not to run off, and spread a plaster and apply to the wound, and I would insure your life for sixpence. The subscriber has tried the above remedy in a number of cases, and never knew it to fail in one. P. Prettyman, M. D. *Portland, Oregon*

Valuable Recipes.

To Make Yeast.—Take one handful of hops, one apple, one potato sliced, boil in two quarts of water; while hot, strain off and stir in wheat flour until it is thick as paste—coarse flour is best. Grate one large apple, one large potato, place them in a gallon jar, pour in the batter, when sufficiently cool, add a little yeast; in twelve hours it will be fit for use.—*Ohio Cultivator.*

Quick Made Blacking for Shoes.—Beat up two eggs, add a teaspoonful of alcohol, a lump of sugar, and ivory black to thicken; it should be laid on and polished like leather blacking, and left a day to harden before it is used.

To Preserve Currants.—Cut them carefully from the stalks, so that the skins may not be broken. Put them into perfectly clean and dry bottles, adding gradually as you fill them, ten ounces of finely sifted loaf sugar, so that the sugar may fall on each layer of currants. Fill the bottles, and seal the corks, and they will keep till nature furnishes you with a new crop.

White Currant Wine.—One quart of currant juice, two quarts of water, three pounds white sugar; mix well together, let it stand twenty-four hours, then skim it well, then put it into demijohns and let it remain six weeks, corked looosely, then bottle it.

Red Currant Wine.—For ten gallons; three gallons juice, thirty-five pounds of common sugar, fill with water. Leave the cask open until after fermentation is over, then bung up; let it stand one year; then bottle. No addition of spirits.

Fleas, Bed-bugs, &c.—A writer in the Gardener's Chronicle recommends the use of oil of wormwood to keep off the insects above named. Put a few drops on a handkerchief or a piece of folded muslin, and put in the bed haunted by the enemy. Neither of these tribes can bear wormwood, and the hint is especially commended to travelers who are liable to fall among the topers of blood.

Wash for Sunburn.—Take two drachms of borax, one drachm of Roman alum, one drachm of camphor, half an ounce of sugar-candy and a pound of ox-gall. Mix and stir well for ten minutes or so, and repeat this, stirring three or four times a day for a fortnight, till it appears clear and transparent. Strain through blotting paper, and bottle up for use.

Dairy Management and Butter Making.

That a very high temperature, or a very low one, has *some* effect upon the amount of cream which may be raised from any given quantity of milk, is a proposition which will readily be assented to by almost every one who has any acquaintance with the affairs of a dairy. But very few seem to have any but the most vague and inaccurate impressions in regard to the *exact* amount of influence exerted in this way by any given range of temperature. Judging from the wild guessing and the very diverse answers given, within a limited sphere, to certain questions intended to bring out the prevailing opinions concerning this matter, we would say that the largest number of those engaged in the care of a dairy would answer or 'guess' a long way from the exact truth in reply to a question as to the degree of temperature at which milk will throw up the largest amount of cream. Very few, indeed, we think, could come very near to exactness if asked to calculate the amount of loss suffered by diminution of cream from any certain quantity of milk during a month or a season of very warm or very cold weather. Very few could tell whether the amount of loss from this source would warrant any given amount of outlay for the purpose of being able to regulate the temperature of the milk-room by the employment of means to raise the temperature in cold weather, and to lower it in that which was very hot and sultry.

In many large dairies it would be a matter of considerable pecuniary importance, to be able to determine *accurately* the amount of loss from the diminished quantity of cream, caused by a temperature either too high or too low. The amount of expenditure which might safely or profitably be made in obviating this injurious influence could then be calculated with a satisfactory degree of certainty. To such as may desire information and reliable data in regard to this matter we submit an abstract of some observations lately made to the Royal Agricultural Society of England, by a distinguished dairy farmer of that country, of whose mode of feeding dairy cows some account was given, a few weeks ago, in the columns of this paper.

As a considerable falling off in receipts from the dairy was observed by Mr. Horsfall, the gentleman referred to, in the month of November of a certain year, and as no change had taken place in the number or circumstances of his cows, or in their food, he was led to inquire into the cause. He found that the same quantity of milk was brought to the dairy-maid, and that the deficiency arose solely from a less quantity of butter. The weather had been very cold. Upon testing the quantity of butter obtained from the cream of 16 quarts of milk he found that there were only 16 ounces in the place of 26 ounces had during warmer weather from the cream of the same quantity of milk. On trying the temperature of the milk-room he found it somewhat below 40 degrees; and it then occurred to Mr. H. that the deficiency of butter most probably arose from a too low temperature in the dairy. To raise the temperature was the obvious remedy. For this purpose he ordered a shallow open cistern to be made of wood, with a rim of about three inches along each side and to be lined with thin sheet lead. Water could be made to flow through this cistern to the depth of three inches. At its lower extremity was a hollow plug having perforated holes, at least three inches above the bottom, through which the water could make its escape as fast as new supplies of hot water came from the feeding pipe. When the new milk is brought in, the pans are placed in this cistern, and hot water immediately let in flowing along till it rises to the height of the holes perforated in the tube which conducts it away. When the water has been used and become cool, the plug is drawn and the cistern emptied entirely of water. By this means and by letting in hot air from his kitchen, the dairy attains a temperature, in winter, of from 52 to 54 degrees. At this temperature Mr. H. again obtained 26 ounces of butter from the cream of 16 quarts of milk. This was an increase of a little over 50 per cent.

By using cold water in summer through the same contrivance the milk can be kept from souring as soon as it otherwise would. In both seasons—summer and winter—Mr. H. obtains the largest yield of butter, when his dairy is about from 52° to 55° of Fahrenheit's thermometer.

United States Agricultural Society.

A Grand National Exhibition of Stock—*Horses, Cattle, Sheep and Swine*—open to competition to all the States of the Union, and to the British Provinces, will be held by the United States Agricultural Society, in the City of Boston, on Tuesday, Wednesday, Thursday and Friday, October 23d, 24th, 25th and 26th.

Twenty-Thousand Dollars have been guaranteed by patriotic gentlemen of Boston and its vicinity to defray the expenses; the City of Boston has generously granted to the Society for present use, a fine public square of fifty acres; and ten thousand dollars will be offered in Premiums, in the various departments.

The previous Exhibitions of this Society—at Springfield, Massachusetts, in 1853, and at Springfield, Ohio, in 1854—were eminently successful, and no efforts will be spared to make the present Show, combining as it does, the Four Great Departments of Farming Stock, superior to its predecessors.

The Premium List, with the Rules of the Exhibition will be forwarded to all who will address the President or Secretary, at Boston, to that effect.

It is earnestly hoped that all Breeders and owners of Fine Stock will feel it to be a duty, as it certainly is for their interest, to contribute to the Show.

The List of Entries, Exhibitors and Award of Premiums, and all the proceedings of the Exhibition, will be published in the Journal of the Society, for 1855. Annual Members of the Society, who desire to receive the Journal, should remember to renew their subscriptions.

MARSHALL P. WILDER, *President.*

William S. King, *Secretary.*

Cultivation of Winter Wheat.

No soil can produce wheat unless it contains, in an available condition, all the inorganic elements of plants. It does not follow, however, that if these are present in sufficient quantity, the soil will produce good wheat. Indian corn is composed of precisely the same elements as wheat, and the proportions are nearly identical; yet we have much land that produces excellent corn, that is not adapted to wheat culture. We know so little in regard to the manurial requirements of Indian corn, that we can offer no chemical explanations of this fact. We know that wheat requires in the soil, a large quantity of ammonia, for the production of a good crop; and nearly every well established fact in regard to corn culture goes to show that the same is true of this crop. We come to the conclusion therefore, that while it is probable there are some chemical causes why one soil is better adapted to wheat culture than another, yet that, so far as we can see at present, the difference is owing principally to the mechanical conditions and texture of the soil.

Wheat delights in a compact, calcareous loam, rather clayey than sandy. We have heard farmers say that they preferred a sandy to a clayey soil for wheat, but this opinion arises from the fact that most of our clay land needs underdraining. A calcareous clay that is underdrained, or naturally dry, is better for wheat than a sandy soil under similar conditions. Why it is, we know in part;—the double silicate of alumina and soda parts with its soda and absorbs ammonia from rain water, the atmosphere, and from any other bodies containing it. Sand does not possess this property; and herein lies one reason why a clay soil is better for wheat than a sandy one. Clays, too, have the power of absorbing and retaining moisture to a much greater extent than sand. But we can overcome both these drawbacks by an extensive cultivation of clover, peas, turnips, &c., on the sandy soils. These plants absorb ammonia from rain water and the atmosphere, and thus accomplish the same end as the double silicate of alumina and soda, while the carbonaceous products arising from their decomposition in the soil give the soil an increased capacity for absorbing and retaining moisture. These considerations lead to the conclusion that the farmer has the means in his power to make a sandy soil as good for wheat-growing purposes, as a clayey one, in every respect, so far as we can see to the contrary with the little light we possess on this subject, except in its mechanical condition.

As we have said, a wheat soil must be compact. If it is not so naturally, mechanical means should be employed to compress it. Treading light wheat land in the fall or early in the spring with sheep, is frequently beneficial, and a good heavy roller is decidedly advantageous. Crosskill's Clod Crusher, compressing land, as it does, similarly to the treading of sheep, is found very useful on sandy wheat fields in England. We are earnest advocates of deep plowing and thorough pulverization of the soil, but these must not be carried to excess in wheat culture. It is easy to make the light land too fine and loose for wheat. When wheat is sown on a clover sod after one plowing, it is not advisable to plow it too deep; if the sod is all covered and a good "seed bed" obtained that is enough. Subsoil; and plow deep for corn and root crops, and if you summer fallow, for wheat also, but if wheat is sown at one furrow on a clover sod turned under immediately before seeding, we should seldom go more than six inches deep. The best large field of wheat we ever saw in England, was on a calcareous loam that had been two years in red clover, grazed with sheep, which, a considerable portion of the time, were allowed a lb. of oil-cake per day. It was plowed about three inches deep, just before sowing, and a bushel and a half of seed drilled in per acre, one foot apart in the drills. The yield was 55 bushels per acre.

The question of thick or thin sowing, which was agitated so fiercely a few years ago by Davis, Mechi, Huxtable, and other ultra agricultural reformers, is now pretty much decided. A peck of seed to the acre is amply sufficient, as they contended, if it all grows, and the crop escapes wire worms, winter-kill, &c; but it is found that those who practice such extreme thin seeding always lose more from these causes than those who sow thicker, and that these losses more than counterbalance the gain from saving a bushel or two of seed per acre. Taking into consideration the many pests that infest our wheat crop, we are inclined to think, that, if anything, we sow too thin. Two bushels per acre is none too much when sown broadcast, or a bushel and three pecks when sown by the drill. The majority of English farmers sow three bushels per acre, and we know some of them who sow 3½ and even 4 bushels per acre. This would be greatly too much in our climate, but we must not err in the other extreme.

The best artificial fertilizer for wheat is unquestionably Peruvian guano. The lumps of the guano should first be sifted out and crushed. It can then be mixed with muck in equal parts, or sown alone, broadcast, at the rate of from 200 lbs. to 400 lbs. per acre. It should be harrowed or cultivated in, thoroughly incorporating it with the soil, before sowing the seed. This we prefer; on very sandy soil, it might be advisable to sow 100 lbs. per acre in the fall after the wheat is sown, and another 100 lbs. early in the spring. On heavy land it should always be sown in the fall, and the longer it is incorporated with the soil before the seed is sown the better. The earth is a stomach in which food for plants is digested and prepared; and time should be allowed for it to accomplish this before the plants require nourishment. On light soils, however, there is danger of its leaching if sown too early; and there is less necessity for doing so, as from the admission of air, light and heat, chemical changes take place much more speedily in sandy soils than in those of a close texture.

Plaster is frequently recommended for wheat, and there are many instances recorded where it has proved very beneficial, but the mass of testimony is against it. In the wheat growing districts of this state, it is frequently sown on wheat in the fall; but it is rather with an eye to its effect on the clover, to be sown the following spring, than to any action it has on the wheat. Many will object to this, and contend that plaster does good on wheat. To this we would say, that if plaster acts well as a manure for wheat on your land, by all means use it. When it sells from $2 to $5 per ton, it is the cheapest of fertilizers on all soils where experience shows it to be beneficial. At present, experience —or what is simply a short cut to experience, experiment—is the only guide in this matter. The same may be said in regard to salt as a manure. Many instances are recorded where it has had a magical effect. Some such have come under our observation. As a general rule however, salt is of little benefit on wheat. Prof. Way suggests that salt acts by increasing the solubility of the silicate of alumina and ammonia. Water containing salt will take up a very much larger quantity of this salt than pure or ordinary rain water. He has expressed the opinion that the silica which forms the stiffening of the straw of wheat, is taken up by the plant in the form of this salt—the ammonia evaporating as the silicic acid is deposited on the straw. If this ingenious hypothesis proves correct, we have at once an explanation of the well known fact that salt stiffens the straw of wheat, and has a tendency to retard excessive and injurious luxuriance. We would say of salt, as of plaster, it is cheap, and every farmer should experiment and ascertain its effect on his own soil. Analysis, in the present state of chemical science, will not aid, though when this subject is better understood, it is highly probable that it may prove useful.

Culture of Indian Corn, &c.

Editors of Country Gentleman—I have raised corn in drills for several years, and adopted it as my general practice, being satisfied it produces more by that mode of culture than in hills, and no more labor to cultivate, with the exception of cutting up. I have made no actual test by way of experiment, yet I am satisfied that the yield is very considerable more. It ears better in drills. Each stalk of corn requires, in our latitude, about 3 square feet of ground, the same as the mangold wurtzel or the ruta baga; and the best possible product which could be obtained, would be by planting them singly at equal distances apart, about 20 inches. I have known an acre of corn cultivated this way, which was said to produce 130 bushels of shelled corn. Owing to the abundance of weeds, we have the nearest approximation to this, we can conveniently cultivate, in planting in drills three feet apart and a foot asunder in the drill. This will enable the corn, at the last dressing, just as the tassel appears, to cover the whole ground, and prevent the further growth of weeds. If the ground could then produce weeds, it could produce more stalks of corn.

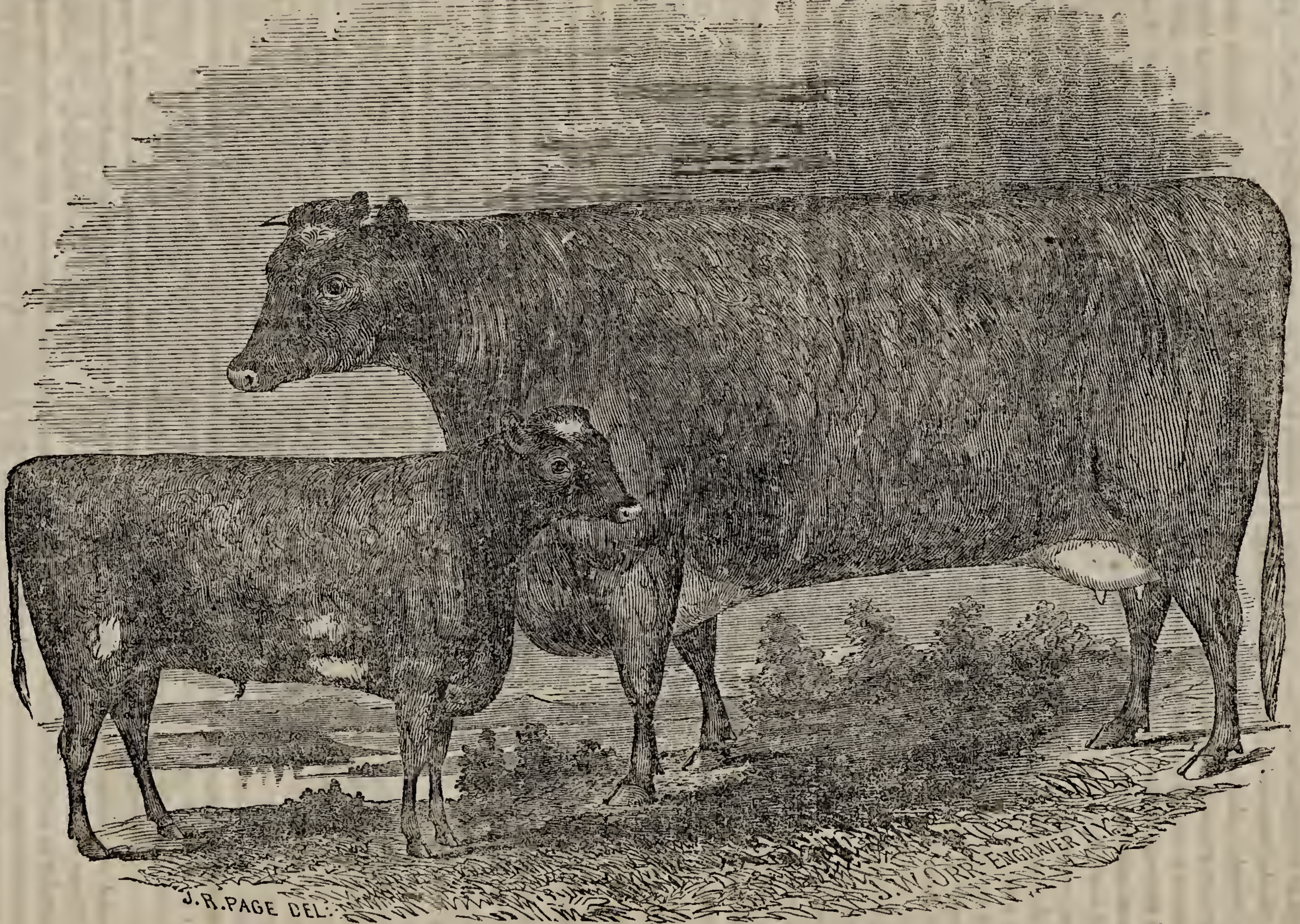
I plow deep, turn sod, manure, or whatever nutritive matter there may be on the ground, under, and then so cultivate as not to have that matter disturbed during the year, making the ground as near a hot-bed as possible; then use the cultivator, hand or plow, to exterminate the weeds. If there are no weeds or grass, no dressing is required. The ground is best pulverized by the fermentation beneath, and this mode is composting the manure for after crops.

Probably rotted manure dragged in at the surface of the ground, and then frequently stirred up, would produce as good or even a better crop of corn, but not so good for the after crops.

Some years ago I had a field well manured with fresh long manure—straw thrown daily into the barn-yard—I should say about 20 cords to the acre, cultivated in the way above stated, which produced about 60 bushels of corn to the acre; a good crop of barley succeeded, and then a good crop of winter wheat, when it was seeded down and used for meadows. On the fifth year in meadow, the eighth from the manuring, there was a severe drouth, but that field yielded at least 2½ tons of hay per acre, while the adjoining meadow of the same quality of land and seeded the same time, which had not been manured, yielded about a half ton per acre. The land was a clay loam, intermixed with shift gravel.

I do not discredit your correspondent Mr. Brewer's statement, in favor of shallow plowing for corn, as good corn can be raised without any plowing at all. The squaws of Squawkey Hill, Livingston Co., formerly raised corn by pulling up the old stalk and planting the seed in the hole produced thereby, and after the corn was up, digging the ground with hoes. I have grown good corn in the garden by spading up merely for the hills or drills, and then spading the whole ground by way of hoeing. Mr. Brewer cultivates his ground after the corn is up. I think it is more practicable to do so before planting.

The modus operandi of the growth of corn is but little known. A few observations have led me to believe but little of the nutriment of corn passes up through the roots. I have often observed that stalks of corn pulled by the crows, and held to the earth by a single fibrous root, laying flat upon the ground, would grow about as well as those standing; and two years ago, when dressing my corn the last time, I observed a stalk 2½ feet in length, disengaged from the field by a hard lump of earth about the size of a pint bowl, and on inspecting it I found no appearance of the roots passing through the lump. I set the same carefully up between two stalks, so that it should stand up, and often after that inspected it, and found it doing well until the brace roots were so prominent I could not distinguish it from the others. Hence I conclude the corn is principally fed through the leaves, and the manuring, the moisture, and cultivation, should be such as to gradually send up a certain gas through the growing season. Perhaps this could be done by sowing manure from time to time through the season, without disturbing the earth, but certainly can be done much easier by turning manure deep under so as to produce a fermenting mass the summer through. In this way the ground will be mellow at harvest, even if not stirred after planting. The corn needs neither hoeing nor dressing; it is the weeds which require exterminating. I have left part of a field, where there were but few weeds, by way of experiment, without any cultivation after planting, and found no difference in the product. The land was a clover lay, turned under in May, plowed eight inches deep, dragged, marked, and planted with sod under. This was on a gravelly loam soil—upland alluvial. I have plowed this spring on bottom alluvial from 12 to 17 inches deep for corn. Can tell the result better hereafter. L. *Strachan Place, July* 25, 1855.


J.R.PAGE DEL.
J.W.ORR ENGRAVER N.Y.

Sunshine and her Calf Essex, the property of B. & C. S. Haines, Elizabethtown, N. J.

Sunshine--Red; calved April, 1852; sire, imported Duke of Exeter (10152)—Dam, Snowstorm, by imported Duke of Wellington (3644)—g. d. Old Snowstorm, by imported Alexander (4)—gr. g. d., Fashion, by Otto (9463)—gr. gr. g. d., Kicker, by Moscow (9413—)gr. gr. gr. g. d., Princess, by Wellington (684)—gr. gr. gr. gr. g. d., Old Princess, by Wynyard (703). Essex—Red; calved December 10th, 1854; sire, imported Wolviston (10176)—Dam, Sunshine, as above.

The Cultivator—1855 and 1856

The season of the year reminds us that we may once more address the friends of this paper, now ere long to enter upon its Twenty-third volume. To the Twenty-second, for 1855, we confidently refer as an improvement on its predecessors, and an earnest of still farther effort in the future. We beg its readers to give it a thorough examination, either by the side of its own past issues, or those of any other similar work.

With its circulation the present year, we have been very much encouraged. It has increased largely when most have fallen off. Its correspondents have never been more able. The commendation of its friends has never been more hearty.

And thus we are lead to look forward to 1856, with renewed hopes and enlarged plans. THE CULTIVATOR, at its present price and value, ought to reach a circulation of from FORTY to FIFTY THOUSAND COPIES, and this we have no small prospect and expectation of obtaining.

EVERY FARMER should take it and read it. If we consider how vast their numbers are, how large a portion of them take no Agricultural paper at all, even this extended circulation will seem in comparison small. And if ever FIFTY CENTS was so invested by a Farmer as to produce the greatest good and the largest returns, it will have been paid for a subscription to THE CULTIVATOR.

Will not our friends take hold of this matter earnestly? Every subscriber obtained should be induced to lend his assistance to the good work, and the lists, thus made up, would be unprecedented in the history of Agricultural papers. We depend upon their aid. The past has shown their estimate of our labors. To the future we look for repeated assurances of their confidence. With the heavy crops and "easy times" that are now promised the Agricultural classes, their exertions in behalf of the CULTIAVTOR must be successful.

To Our Agents, Subscribers and Friends.

We shall continue to furnish THE CULTIVATOR as heretofore—a SINGLE COPY for Fifty Cents; and where TWENTY SUBSCRIBERS are obtained we will send to each as a Premium the ANNUAL REGISTER for 1856, and ☞ to the Agent ☜ a BOUND COPY.

We have found by the experience of the present year, that the plan of giving the REGISTER as a Premium works most admirably. It is the only mode in which Premiums for enlarged circulation can so be given as to benefit Each Subscriber equally. We desire to call particular attention to No. 2 for 1856. It will be fully equal in value and beauty, to that for 1855. It has now become a STANDARD WORK. When it is considered that this is GIVEN AWAY to those who pay Fifty Cents for the Cultivator in Clubs, the unparalleled inducements we offer become apparent.

In tabular form, then, these are

OUR TERMS.

SINGLE COPY..........................FIFTY CENTS.
TWENTY COPIES, with Premium to each Subscriber and to the Agent,....................$10.00

In the next Number of the Cultivator we shall announce our List of Prizes for 1856.

Our Prospectuses for next year, and sample copies of the Register for 1856, will be ready to send out with the November Cultivator, and we shall be happy to furnish them to every person who will endeavor to get up a Club.

The Country Gentleman.

This paper, the circulation of which has been constantly increasing since its first year, and especially during 1855, will enter with January upon its Seventh Volume. It is rapidly gaining ground, and as a weekly paper for the Farmer and the Farmer's Family has no equal.

We know that many do not wish to take any other weekly than their home paper, which they feel it their duty to patronize, and to these we offer the CULTIVATOR. But to the readers of that paper, who have had opportunities of judging of the character and style of our publications, and who have been thereby led to take more enlarged views of the subject, we offer the COUNTRY GENTLEMAN with confidence, as containing a very considerably greater quantity and variety of matter on strictly rural subjects, and besides, as furnishing a complete Record of Passing Events, and a Miscellaneous Department calculated to interest, amuse and instruct every member of a family. In its Horticultural and Fireside Departments, it supplies all that is desired in a family paper by those who possess but a strip of land for garden operations, and its *Farm* pages will be found alone to contain more for the benefit of larger Agriculturists than the similar department in any of our cotemporaries.

These being the facts, we look forward to a large increase in the support extended to our Weekly for 1856. We shall be glad to furnish sample copies, and to have the attention of all who are interested in any way in Rural pursuits drawn to the subject.

THE CUT WORM.—A correspondent of the *New England Farmer*, whose cabbages, tomatoes, &c., the cut worm frequently destroyed, wrapped around the stem of each plant, before transplanting, a piece of paper, extending from a short distance above the root to the first leaf. It is done quick, and is a perfect remedy. The paper lasting till the plant is large enough to take care of itself.

Fertility of Subsoils

Messrs. Editors—It seems to be questioned of late by some of your correspondents whether there is much in the short phrase which stands at the head of this brief article. I know it was once considered a heresy in farming, to thrust the plow beneath the surface soil, or think of bringing to the light earth which the sun had never shone upon. But I had supposed that these ideas had become obsolete—that the beaten track of our fathers, in surface cultivation and scanty crops, had been abandoned for a more enlightened and improved method of extracting from the soil greater returns by strengthening and deepening its powers to yield without exhaustion. That this is, and has been the case, the improved condition of a great number of farms in this part of the country affords abundant proof. Farmers have learnt that there is fertility in subsoils, and one of the prominent features of modern improvement, is, to break into and bring up the subsoils and get 8 to 12 inches of mellow earth to nourish the roots and sustain the growing crop, instead of 3 to 5 inches as was formerly the general practice. There may be isolated cases in some peculiar localities, where no perceptible benefit can be realized by disturbing the subsoil, and perhaps a positive injury, but these are cases, " like angels' visits, few and far between."

My purpose in writing now, is to relate one instance of fertility—my first experiment with subsoils. In the spring of 1826, which was followed by one of the driest summers ever known in this region, and remembered as the great grasshopper season, when on the uplands and plains every green thing was eaten by the myriad of these destructive insects, which covered the earth and filled the air, I contracted to plant and raise ten acres of corn, and after harvesting the crop, to divide it equally with the owner of the land. I was then too poor to own any land, and working another's land upon shares was the best I could do. It was alluvion, or river bottom land, which was the only kind of land that escaped the ravages of the grasshopper that season. Adjoining one edge of this field, was a high sandy bluff, and where there was a slight depression, the water collected and ran down, at the time of an uncommon great fall of rain in Oct. 1820, and washed out the bank to the depth of 20 feet, depositing the dirt on the meadow below, from 6 to 18 inches deep, and covering about one acre of the surface of the meadow. The owner of this beautiful intervale had lamented and mourned over the loss of this acre—not only the land was gone, out of sight, (a loss of $75 at least,)—but that unsightly mass of sand troubled him—a barren spot amidst fertility. A few thistles and weeds began to spring up upon the outskirts; it seemed to me there might be soil there, or something that would make soil, and as it lay in one corner of the field I was to cultivate that season, I proposed to manure and plow it with the field, to which he assented, but neither he nor I had much faith in a crop of corn from it. There was not manure enough to put only about 15 ox-cart ads to the acre upon the whole field, spread broadcast—no more put upon the barren acre than upon the other part—but I plowed it twice the depth, about 10 inches; it was all hoed well twice; after the first hoeing a mixture of slaked lime, unleached ashes and plaster, was applied, a single handful to each hill of corn. In every particular, the whole field was treated alike; but the corn on the sandy loam that had washed in, six years previous, took the start early in the season, and kept ahead throughout. The average yield of the whole field, was 62 bushels of shelled corn to the acre, and the supposed barren acre had at least one-fifth more than any other part of the field. This convinced me that susboils are worth looking after, and my attention has since ever been drawn to deep plowing. Some of this soil was washed out 20 feet below the surface, and yet possessed all the elements of fertility in an eminent degree. The owner of this land told me, a few years afterwards, that this acre continued to produce equal to the best of his intervale, only it was inclined to grow thistles rather too rank. Every one who has had experience with Canada thistles knows that they flourish best on the deepest and richest soils. J. W. Colburne. *Springfield, Vt., Aug.* 26, 1855.

Fencing with Wood and Wire.

Messrs. Editors—In answer to the inquiry of B. F. T. of Louisville, (Ky.) in the Cultivator of June last, we would recommend fencing lands subject to inundation, with wood and wire, as follows:

The wire to be used is one-eighth of an inch in diameter—may be less. Two wires at the top make the top rail, and two the bottom rail. The two sets of wires may be three feet apart. Fasten the wires by winding them twice round a large bolt driven into a tree, and secure the loose ends by afterwards weaving them into the slats of the fence. The coils of wire should be kept some yards apart to prevent being entangled while building; and a stake driven into the ground some yards ahead, (to be moved as occasion requires) with holes in the same, through which to pass the wires before fastening to the first tree or post. A strip of inch board, four feet long and three inches wide, is now placed erect between the wires, next the tree, and the wires crossed; another board set up and the wires crossed back, and so on, fastening to the trees or posts by staples driven through the boards astride the wires: and you now have a strong durable fence, warped with wire, and filled with wood.

The advantages claimed for this kind of fence, are—It is suitable for the border of a river, the edge of a grove, or across a stream, and perhaps in many other places. It is easily constructed, materials light and cheap, and can be made in the shop, in sections of eight or ten feet, and be a portable fence. There are no joints to retain water; the woody portions stand erect, and are only worn out by the action of rain, &c. The winds may blow and the floods come, it is neither blown down or washed away, and is formidable enough to restrain unruly horses and cattle. Charles Colby. *Meriden, N. H.*

Premium List U. S. Ag. Society.

The following premiums will be awarded at the Third National Exhibition by the U. S. Ag. Society, to be held in Boston Oct. 23—26.

For the best bull and four cows, from any one herd, $300—2d do. $100.

Short Horns. *Bulls.* Three years old and upwards, 1st premium $100—2d, $50—3d, Diploma. Two years old, 1st, $50—2d, $25. One year old, 1st, $25—2d, $10. *Cows and heifers,* same premiums as for bulls.

Devons, Ayrshires, Herefords, and Jerseys; same as Shorthorns.

Grade Cows. Same as Shorthorn bulls. Native Cows the same.

Milch Cows. Five years old and over, four premiums—$100, 75, 50, and 25. Three years old and under five: four premiums, $75, 50, 25, 15.

Working Oxen. Four years old and upwards, 1st, $100, 2d, $50—3d $25. Steers. Two years old and under four, 1st. $50—2d, $25—3d, $15.

Fat Cattle. Fat Bullock, 1st, $75—2d, $50—3d, $25. Fat Cow, 1st, $50—2d, $25—3d, $15.

Thoroughbred Stallions and Mares. Stallions, 4 years old and upwards—1st, $200—2d, $100—3d, $50—4th, Diploma. Mares, 4 years old and upwards—1st, $150—2d, $100—3d, $50—4th, Diploma.

Stallions of all Work—4 years old and upwards—four premiums, $200, $100, $50, and diploma. Three years old and under four, 4 premiums—$150, $75, $50, and diploma. Two years old and under three—4 premiums, $50, $25, $15 and diploma. One year old and under two—3 premiums, $30, $20 and diploma.

Breeding Mares and Fillies. Mares four years old and upwards, 4 premiums, $150, $100, $50, and diploma. Fillies, three year old, 3 premiums, $75, $50, and diploma. Fillies, two years old, 3 premiums, $50 $20, and diploma. Fillies, one year old and under two, 3 premiums, $30, $20 and diploma.

Matched Horses—4 premiums, $100, $75, $50, $25.

Fancy Matched Horses—3 premiums, $75, $50 and diploma.

Ponies—Matched, $25. Single $20.

Family Horses—4 premiums,—$100, $75, $50 and $25.

Draft Horses. Matched, 3 premiums—$100, $50 and $25—Single, 3 premiums, $50, $25 and diploma.

Long Wooled Sheep. Bucks, two years old and over, 3 premiums, $25, $15 and diploma. Under two years, 3 premiums, $20, $10, and diploma. Ewes—Not less than five in number—same premiums as for bucks. Middle Wools, Merinos and Saxons: same premiums as for Long Wools.

Suffolk Swine. Boars, two years old and upwards, 3 premiums, $25, $15, and diploma. One year old and upwards—3 premiums, $20, $10, and diploma. Sows, same premiums as for boars. Essex, and "Other Breeds," same premiums as for Suffolks.

Pigs. Not less than six in a litter—ten months old and under, 2 premiums, $15, and $10.

One thousand dollars have been set apart for discretionary premiums.

There will be trials of trotting horses on Tuesday and Wednesday, of horses that have never trotted for money; 1st premium, $200—2d, $100. On Friday there will be: "A grand trial of speed, free for all trotting horses and all drivers," 1st premium, $300—2d, $100.

ENTRANCE FEES.

The Entrance Fees for Stock, (except trotting Horses,) will be:

For competition for premiums of $200, and over,....	$10.00
" " " $100, and under 200,	5.00
" " " under $100,........	3.00
Trotting Horses, competing for premiums of $200, ..	20.00
" " " " $300,...	30.00

Trial of Reapers in France.

At the trial of agricultural implements which took place at La Trappes, on the farm of Mr. Dailly, Postmaster General of France, American Reaping and Thrashing machines came off victorious, in competition with the world. Prince Napoleon, M. Drouyn de l'Huys, Gen. Morin, M. Emile de Girardin, and other distinguished men from different countries were present. Among them were nine Arab chiefs, "tall, fine looking men, who took much interest in the proceedings." Ex-President Fillmore, Gen. Tombs, several members of Congress, and other distinguished Americans were also present. There were seven reapers on the ground, three American, McCormick's Manny's and Hussey's, two English, and two French. The wheat was heavy and much laid. The machines all started together at the tap of the drum; McCormick's taking the lead, and keeping it to the end. It finished its portion in 10½ minutes; Manny's in 16 minutes and Hussey's in 18 minutes. Cournier's (French) machine came out next. The others varied from half an hour to an hour and a half.

There were four thrashing machines entered for competition, one American (Pitt's of Buffalo) one English, one Belgium and two French. They worked half an hour. Six men with flails were set to work at the moment the machines started. The following are the results of the trial:

Six thrashers with flails,.........	60 litres of wheat.
Pitt's American Thrasher,......	740 litres of wheat.
Clayton's English Thrasher,....	410 litres of wheat.
Dunoir's French Thrasher, ...	250 litres of wheat.
Pinel's Belgian Thrasher,......	150 litres of wheat.

In regard to Pitt's machine, the *Moniteur* says:

> "Pitt's machine has therefore gained the honors of the day. This machine literally devours the sheaves of wheat.; the eye cannot follow the work which is effected between the entrance of the sheaves and the end of the operation. It is one of the greatest results which it is possible to obtain. The impression which this spectacle produced upon the Arab Chiefs was profound."

Daisies.

Predjudices rise up in our minds and obscure our views of things like insurmountable precipices. A want of observation perpetuates them. For want of attention it appears to me that an unjust predjudice has arisen against daisies. The daisy is a very hardy plant; stands the drouth better than most grasses; is highly aromatic, mucillaginous, and pleasant tasted herb, and very nutritious. On the sandy lands about Cape Cod, where grasses are raised with difficulty, daisy seed is sown by some farmers, and the hay made from it is considered to be worth thirty three per cent more than that made from timothy or clover. The hay made from it is highly relished by horses, cattle and sheep. The only objection against them, seems to be, that though horses and cattle are fond of them when made into hay, they will not eat them when green. But as there is no herb which can be placed before sheep of which they are more fond than of the daisy, their great regard for this plant can be made use of as a means of destroying them. A few years since, I pastured a field, which was well seeded with daisies, very closely with sheep early in spring—in May I turned it over with the plow and put on a crop of oats, turning under the daisies, and letting them stay underneath. Thus I unintentionally destroyed nearly all of them. There is one other mode of destroying them. Make the land so rich with manure, that if it be a meadow, it will produce a large crop of grass, and the grass will choke out the daisies.

Having long cultivated daisies I am entirely indifferent about getting rid of them. Wherever the land is rich enough to bear a good crop of grass the grass will grow in spite of them. Wherever the land is poor or out of heart, the daisy takes its place and forms a substitute which is highly useful as pasture for sheep or as hay for them, or other animals. They come into bloom about the same time as clover, and should be cut before the blossom falls. They do not flourish on wet soils; but on poor dry, hilly, or mountainous lands and on poor sandy plains like those of eastern Maryland or Virginia, they may be raised to great advantage for sheep pasturage where ordinary grasses cannot be produced. H. J. Canfield. *Mahoning Co.*

Stationary and Movable Horse Powers.

Messrs. Editors—Having it in contemplation to build a barn the coming season, I wish to be informed whether a stationary horse power, fixed in the basement story, would not be cheaper and better than any of the movable powers now in use. The plan on which I propose to build is, with a little variation, the one described by Robert Sinclair in vol. 6 of the Cultivator (1839,) page 148. Sufficient room may be conveniently arranged in the basement for the power and horse-path, and the question with me is whether it is best to prepare it for that purpose? I have been told, but know not with how much truth, that many of the farmers in the middle states, who have heretofore had stationary powers erected, have thrown them by as useless, and procured some of the movable kinds, finding them far superior to the old ones. *If such be the fact*, would it be profitable to provide room in the basement for a movable power? And if so,—how large a space? And whose plan of a power is best, where ample room can be had? Until recently I had always heard stationary powers spoken of as the cheapest, most simple, least liable to get out of repair, and on the whole much the best.

I would like to get the views of any of your subscribers who have had experience in these matters, and they are many. I therefore beg leave that their views and the facts and observations resulting from their experience herein, be made known through your papers as soon as convenience will permit, not doubting that the evidence thus brought out will have a tendency to settle the question, and that others may be benefitted thereby as well as myself.

One other topic I wish to mention. There is no ground alum salt, such as is put up for salting butter, brought to this market. It has not been in Chicago this season. Our dealers have repeatedly inquired for it. Where is a good article of the kind to be had? Cyrus Bryant. *Princeton, Ill., Aug. 27*

To Renovate Worn-out Meadows.

Answer to G. A. H., Potsdam, St. Lawrence Co., N. Y. Plow by all means; and if the land is not underdrained, plow in lands 30 to 40 feet wide, so that the dead-furrow, when cleared out, will be a ditch for the discharge of surplus water. Land that is low and wet, must be plowed in a dry time. I use for plowing, where the sward is tough, with brakes, bogs, and wild grass, a plow that cuts sixteen inches wide and ten to fourteen deep, with wheel and coulter, drawn by four stout oxen; the furrow turned flat and shut in; then roll with a heavy roller, and harrow well lengthwise; manure with rotten and compost manure, fifteen to thirty loads to the acre; seed with herds grass and northern red-top, with a little sprinkle of clover.

Let the land be fitted in the fall, have the benefit of the winter frosts, and sow the seed any time in May; harrow and roll, and in three months you may often cut three tons, tender, first quality hay to the acre. When the grass has run out, as it will in four to seven years, plow again, and go through with the same course. Soils with a tender turf, may be plowed with a common two-horse plow, 11 to 12 inch furrow, and as shallow as 4 or 5 inches, treated in the same way, with good results.

To Kill White Daisy.—Be sure that none ripens its seed. The roots may be killed by thorough plowing, or by thorough cultivation with a hoed crop.

Many years ago, I tried harrowing and re-seeding old meadows, with a poor result. H. W. L. *Rutland, Vt.*

Curing Corn for Fodder.

I see in the last Country Gent., an inquiry about securing broadcast corn for winter. I have tried many ways, but have only succeeded well with all my crop thus: I set crotches in the ground, 12 or 15 feet apart, laying a pole in the crotches, say 7 to 8 feet above the ground. Commence at one end, laying rails or poles, 1½ feet apart, about 10 or 11 feet long, on each side, one end on the pole, the other on the ground, similar to the rafters for a tolerably flat roof—lay a few stalks crossways of the poles or rails, to prevent the fodder from falling through—then commence standing the longest or straightest stalks, but down, on the ground—put a course the length of the fodder house or stack, on both sides—the next course buts up, and so on until the stack is finished, covering the top with coarse hay or long straw. It may be put on one foot thick, and covered again in the same way another foot thick, if desired, after standing a week or two in dry weather, leaving the frame open at both ends. I cut with a short cradle, when the corn is not very tall and stands up well, or with grass knives when down or stout, leaving it lying on the ground three or four days, before taking it up. When well put up, it is sure to keep well. At the commencement of winter, the north end may be closed up if desired, and filled inside. Lewis Bailey. *Fairfax Co., Va.*

Inquiries and Answers.

Laying Drain Tiles.—*S. F. D., Bath, Me.* It imposible to give any general "directions for laying tiles," that are applicable to all cases. With horse-shoe tiles, on soft, mucky soil, or when the drains run through a quick sand, it is necessary to lay them with great care, on sole made for the purpose, or on pieces of broken tiles; being very careful to have the fall constant, so that there shall be no chance for a deposit of sand, as would be the case if the flow of water was at all checked. If pipes or sole-tiles are used, all that that is necessary is to see that the bottom of the drain has a level descent, if we may use such an expression, and to carefully put the ends of the tiles together, so that there shall not be too great a space between. The tiles are sometimes covered with an inverted sod, if convenient; if not, they can be covered with the clay and soil thrown out of the drain. No fears need be entertained that the water cannot get into the drains A little practice will soon dispel this foolish notion.

Farm Buildings.—Can you give in your paper some plans for buildings for a stock and dairy farm? G. H. W. *Clarksville, Geo.*

We are now getting out our Illustrated Annual Register of Rural Affairs for 1856, which will contain seven Designs for Farm Houses—Five Designs for Barns—Two for Carriage Houses, and a great variety of other structures. It will be issued about the first of October—price 25 cents—sent by mail post-paid.

Osage Plants for Bearing.—I have a fine lot of Osage Orange plants growing, and wish to be informed at what age those left unpruned will blossom and bear seed.

Lime on a Clay Soil.—Also, which is the preferable way to apply lime to heavy clay soil lacking that element; sown broad-cast and plowed in or applied as a top dressing? Should it be plowed under in the autumn with a good coat of stable manure, or applied in the spring? What is the number of bushels to each acre required upon such soil, having never been cultivated, to fit it for kitchen and fruit gardening purposes. W. C. Healy. *Elk Co., Pa.*

The Osage Orange requires several years (varying with circumstances, not always to be controlled,) to come into bearing. It will bear fruit in the northern states, but our impression is that the seed will only ripen well at the south. Can any of our correspondents inform us definitely on this point?

Spread the lime broad-cast, in the fall, and plow it in three or four inches deep; it is not advisable to bury it too deeply, as lime naturally descends in the soil. We have seen excellent results when spread on a plowed field and worked into the soil with a cultivator.

Indian Corn for Bread, &c.—Will you please to inform me what is the best variety of Indian corn for bread, and where the seed can be procured. I think the southern corn, which is altogether raised here, is very inferior to what I have seen and eat in the eastern states. Also where can I get a periodical publication on rural architecture; drafts in full, and in detail; also, exclusively devoted to modern building. I am a house builder and have plenty of works of ancient architecture; I also have A. J. Downing and some others, but I want one more in detail. G. L. S. *Galesburg, Ill.*

We do not know of any periodical that would come up to your requirements. You might get some hints from Wheeler's Homes for the People. Will some of our correspondents answer the corn inquiry.

Harvesting Corn for Fodder.—I have got an excellent field of corn sown thick in rows for the use of my cattle in summer, but not wanting it I have concluded to make it into fodder, as the rain has materially damaged my hay and straw on which I usually depend to winter my stock. I have never cured any, and should be glad to hear from any of your readers who have had experience with it, when is the best time to cut it, the best method of curing it, stacking, &c. Some I have talked to about it say it should be cut when quite green before the ears are formed, while others say it is better to let it get nearly ripe. Brighton.

Hay Making Machine.—On page 104, of the Transactions of N. Y. Ag. Society for 1855, I find a drawing of a hay-making machine used in England. I wish to inquire through your paper, if this machine, or a similar one, is used in this country, and if so where to be obtained. A. W. Morse. *Eaton, N. Y.*

We believe there is no machine of this kind made in this country. It is simply a machine for "tedding" or shaking out the hay from the swath. It is not used for shaking out clover, timothy, rye-grass, &c., but only for the "English meadow hay." It is an expensive machine, and we question if it would be of any great advantage in this country. We seldom keep our had spread out more than a few hours, whereas the English are obliged to keep it spread several days, *turning* it, &c., frequently. Under such circumstances, the "tedding machine" saves much labor. Where a mowing machine is used, and the grass is already spread out on the ground, this machine would be of no use with us.

The Chestnut.—Can you inform me if the Chestnut is as quick a growing tree as the Locust, and if it would be suitable to make a screen or belt 30 or 40 ft. thick; and how close they ought to be put for that purpose? W. E. Woodward. *Kickapoo, Ill.*

The chestnut and locust are both good growers, but we cannot state from observation the precise relative rate of growth. The chestnut would make a good belt—and as it is difficult to transplant, the seeds should be planted where the trees are to remain. Care should be taken that they are kept moist from the moment they are taken from the tree—if the outside shell become dry, they are of difficult vegetation. Mixed with leaf mould or sand, they will keep well till planted, which may be in the fall, or very early in spring. Plant in hills like corn, about 6 or 8 feet apart, and afterwards thin out to one.

Hay Presses.—*Many Subscribers, Pittsburgh, Pa.* Messrs. Deering & Dickson of this city, manufacture hay presses, both portable and stationary, which we think cannot fail to suit you. For descriptions of them—their weight, price, &c., see Co. Gent., vol. 4, p. 167, and vol. 6, p. 107. James Wardrop of your city, is agent for the sale of these presses, through whom we presume you can order them.

Strawberries—*J. F, Quebec.* The Early Scarlet, Hovey's Seedling and Burr's New Pine, we would recommend for your purpose. They can be had at all the Nurseries, at about $1.50 for 100 plants.

Poultry House.—I have a building 30 by 40—16 feet posts—which I intend to arrange for a troop of the feathered tribe. Will you or some of your practical correspondents, give me a plan for constructing this building so as to accommodate the greatest number of fowls, with such other improvements as they may have. J. C. P. *Le Roy, N. Y.*

Corn Planters, Mills, &c.—Can you recommend any of the corn planters to me as answering the purposes, for which they were intended, saving labor, and not easily put out of repair, and to be used on rather rough ground. And will any of the corn and cob mills, grind as well as stones? Will they make a good Hominy and corn meal. Perhaps some of your subscribers might inform me. An answer will oblige, J. M. E. V. *Meadow Bluff, Greenbrier Co. Va.*

Measurement of Hay in Bulk.—*John Campbell Jr. Monroe N. Y.* The following receipt for ascertaining the weight of hay in a stack or barn has been going the rounds of the papers for some time.

Multiply the length, breadth, and height of all the hay into each other, and if the hay is somewhat settled, ten solid yards will weigh a ton. Clover will take 11 to 12 yards to a ton.

It is difficult to give a rule that is adapted to all kinds of hay, different modes of stacking &c. but we are inclined to think the above estimate too low.

Twelve cubic yards of Timothy and red-top hay would probably be nearer an average. We shall be obliged, to any of our readers for information on this point.

Bloody Murrain.—One of our Ohio subscribert wishes a cure for this disease. Will some of our experienced correspondents give him one.

Best Cows for the Dairy.

Eds. Country Gentleman—In last no. D. W. of Lewis County, among other things, asks which you consider the most profitable for the dairy, young, old, or middle aged cows—also the most profitable breeds

In answer to the above you say, the *younger* the cow the *richer* the milk, but less in quantity. I would like to see the *data* upon which the above opinion is founded.

It may be and doubtless is true that a cow three years old, will give less milk than she will at a later period of life; but if it is *richer* or better in quality, then my experience in the management of cows, milk, and butter, is an exception to the general rule, for I had supposed that exactly the reverse of the proposition was true—namely, that a cow will not make as much butter or cheese from the *same* quantity of milk at 3 or 4 years old, (all other things being equal,) as she will at 6 or 8 years old. Now for the *fact*:—In the summer of 1851, I had a heifer, 2 years old, that gave 22 lbs. of milk per day, which produced 12 ounces of butter. The same cow, 3 years after, gave 48 lbs. of milk per day, which produced 31 ounces of butter, thus showing what I supposed was a conceded fact, that the milk of a *young* cow was *not* as *rich* as in after life. If I am in error in this position, I hope that some of the *Lewis County* dairymen, (than whom you say there are none better in the world,) will set me right.

In the same article you say that you are not aware that any effort has been made to procure a breed of cows *peculiarly* adapted to dairy districts, which may be and doubtless is true, so far as regards importers or professional breeders; but that there has been a very great improvement in milch cows within the last 10 years, by selecting our best native milkers, and by crossing with other approved breeds, is a fact so well established, that it cannot be successfully contradicted. In my own neighborhood, there certainly has been a very great improvement made in the milking qualities of cows, dairies producing from one-third to one-half more than they did 10 years since, and this I believe to be so generally throughout the state.

There are other things in the same article that are new to me and will receive some attention hereafter. Ontario.

Our remarks were designed to call out the experience of our correspondents on these points. We thank "Ontario" for his letter, and hope to hear from him frequently on all agricultural matters in which we know him to have large experience. The expression, "the younger the cow the richer the milk," is too indefinite and probably not correct. No doubt, as our correspondent says, the milk of a *two-year old heifer*, is not as rich as that of a five-year old cow. We did not intend to be understood as saying it would be richer. We distinctly stated that a cow was in her prime when five or six years of age, and the fair inference from our language is that *after this age*, the "younger the cow the richer the milk." We also said that after "her eighth or ninth year, the milk deteriorates in quality." If our correspondent "would like to see the data upon which *this* opinion is founded," we will endeavor to furnish it.

We quite agree with our correspondent that there has been a great improvement in the breed of cows for milking purposes during the last ten years, but still we have no *breed* of cattle peculiarly adapted for the dairy districts of our country. If there is such a breed in Ontario county, we have yet to see it. The method by which our correspondent says the improvement was brought about, is precisely the one we recommended our Lewis County friend to pursue—*select* the best milkers from "what is called our native breed," and breed from it in special reference to the dairy, by crossing with Ayrshire and other improved breeds that have fixity of character—a quality which our "native breed" does not possess.

Sprouted Wheat Good for Seed.

A correspondent of the *Rural New-Yorker*, W. Garbut, Wheatland, N. Y. states that sprouted wheat is about as good for seed as that which is uninjured by wet weather. This will be good news to many of our readers. Mr. G. is a careful and reliable man and the statement may be acted on with confidence. He says:

> The excessive wet weather in harvest sprouted so much of the wheat in this section, that many of the farmers are very anxious to procure sound wheat for seed. I can assure them that they need not be solicitous on that account, for wheat that has been sprouted will germinate as freely a second time as it did the first, and with equal vigor. To test the fact, on the 17th of this month I took some of the worst sprouted wheat that I had; every kernel of it had grown, and it was so thoroughly dry that the sprouts all rubbed off. I put it into rich soil of suitable moisture. On the fifth day much of it made its appearance, and now, on the eighth day, many of the spears are three inches long, and as strong and as vigorous as I ever saw young shoots of wheat Every kernel of it has grown.

Inquiries about Keeping Poultry.

There are many persons living in towns and villages who, like myself, wish to keep a dozen or so of fowls *principally* for the purpose of furnishing their families with fresh eggs. While the "hen fever" raged, we were utterly at a loss to decide on the merits of the several breeds, so many were the varieties and so loudly were their good qualities proclaimed by the respective venders. Now that this epidemic has subsided, perhaps you will be willing to give your *opinion* as to the best breed for the purpose above named, with reference *also* to their value for the table, their hardiness &c. &c D. *Adrian, Mich.*

Brookside and the Cascade Barn.

About two years since, David Leavitt, Esq., late President of the American Exchange Bank, New-York, purchased for his son, who had a taste for rural pursuits and had studied the science and practice of agriculture at the "Mount Airy Agricultural Institute," a beautiful farm of 300 acres, situated about one mile south of the delightful village of Great Barrington, Mass. With the assistance of Prof. Wilkinson, late Principal of the Institution at Mount Airy, Mr. Leavitt commenced a series of improvements which, for the labor and expense attending them, are probably unequalled in the annals of American agriculture. The situation of the farm commands not only varied and picturesque scenery, but is admirably adapted for that system of improvements which its proprietor is so energetically and bountifully executing. Its outline is nearly quadrangular. On the west, for nearly a mile, the Housatonic meanders through its crooked path, annually overflowing the rich deltal meadows on each side, and forming a landscape, interspersed with graceful willows and other trees, on which the eye delights to rest. On the southeast of these meadows, a natural curvilinear terrace, some 15 yards in height, bounds on the north and west about 50 acres of fine table land. On a slightly elevated point of this table land, Mr. Leavitt has erected an elegant country seat, facing the river. On the southeast the farm is bounded by a high mountain, from which two streams run through a portion of the farm, forming a junction in a deep ravine a short distance from the house. A few rods below this junction a dam is thrown across the ravine, and the arrested waters form a large and beautiful pond, if we recollect rightly about 20 feet deep.

The barn is built in the ravine. In fact one of its sides forms the dam to which we have alluded. It is a gigantic building, spanning the ravine, 200 feet from side to side, and 40 feet wide. The center of the barn is a *square;* on each side, two wings with *arched* roofs, covered with tin, extend to the ravine on either side. The roof of the square center is flat, and forms the base of a cupola 20 feet square, and about 18 feet high. From this cupola rises a wooden spire, of about 30 feet elevation, terminating in an iron rod 12 or 15 feet in height, on which is a ball some 3 feet in diameter, and a full sized plow for a weather cock or vane. The extremity of this rod branches into four forks tipped with silver, and lightning conductors branch from it in every direction over the building.

From the peculiar situation of the barn, and by a great expenditure of labor and money in grading, easy drives are obtained into each story and basement of the building. The upper story is on a level with the surrounding table land, and there is a magnificent driveway the entire length of the building, 200 feet. On each side this driveway, there are bays for the storage of hay, a carriage house, implement room, and convenient apartments for the bailiff and farm laborers, coachmen, &c. Above this, in the center building, there are a granery, pigeon house, and rooms for the storage of cut fodder, and straw for litter. We should have said that the water of the brook by being dammed up furnishes a constant power, and is used for driving the machinery of the building. In the upper story, over the driveway, a shaft, with pullies, runs the entire length of the building; and by it, and an ingenious contrivance, the hay is taken from the waggons, a load at a time, and deposited in the bays alongside. In this way a ton of hay can be unloaded each minute!

Descending to the next story we find another splendid driveway 160 feet in length, and on each side stables and stalls for horses, cattle, &c. We could not help but admire the neatness, cleanliness and perfect order and system which pervaded this, and indeed every other part of the establishment. By means of lead pipes, and conveniently situated stop cocks, there is an abundant supply of hot and cold water, for all purposes. The mangers for cows and horses are of iron, fixed on a swivel, so that they can be easily turned into the driveway, or feeding room, away from the animals. This is very convenient, and might be generally adopted with advantage. The piggeries are on this floor, and are well arranged. In the pens for breeding sows, a framework of slats about a foot high is placed all around the inside of the pen, a foot or so from the outside boards. This is to prevent the sows, in lying down, from crushing the little pigs against the outside of the pen; the frame work leaving a space into which they can escape, between the slats and be safe. Mr. Wilkinson thinks this arrangement has saved him many hundreds of dollars. The dairy is on a level with this floor. It is an arched room or cellar, 80 feet in length extending into the bank of the river, under the driveway by which teams enter the third story above. The floor and roof, which is of stone, are cemented, and means are taken to secure good ventilation, though, judging from our olfactory nerves, which are pretty accurate, the air is somewhat tainted with the gasses from the stables situated on the same floor, and from the manure cellar below. At the end of the milk room there is a large and convenient ice house. The whole length of this floor, including ice house, dairy and stables, is 278 feet!

The basement, 160 feet long and 140 feet wide, is used as a manure cellar, and has an easy driveway to all parts of it. The arrangement for cleaning the stable is most complete. The trap doors are placed on a slide, and by means of a lever at one end of the stable they can be all opened and shut at once in a moment. All the straw for litter is cut, and this, too, greatly facilitates the cleaning of the stables.

The grain is threshed as it is drawn in from the field. The machine threshes out the grain, separates it from the straw and chaff, and carries it, already cleaned for market or use, into the granary in the upper story; it cuts the straw up fine for fodder or for litter, and conveys it up to the store room above. The grain or cut straw, by means of well arranged tunnels, can be shot into any part of the feeding rooms below. The root cellar is in the eastern division of the second story, and there is an apparatus, for sorting and cleaning the roots by means of large riddles or wire sieves, as they are stored away, which we had not time to examine. There are also machines for sawing lumber of all kinds, and one of Woodworth's largest and best Plainng and Matching Machines! The sawdust from these machines falls into a room below designed for its reception. It is used for litter.

The manure is regularly dusted over with charcoal and sulphate of lime in order to prevent the escape of ammonia. The advantage of cutting the straw for litter is most manifest in filling, hauling and spreading the manure. It is all drawn out and spread upon the land *in the winter*. The conveniences of this method are quite sufficient to counterbalance any ordinary loss from leaching, evaporation, &c.

It is said that this barn has cost Mr. Leavitt some *fifty thousand dollars!* Its fame has gone out through the length and breadth of the land, and our readers will ask: "What did you think of it?" Well, we expected something grand, and imposing; but in this respect we were disappointed. It is usually considered an American characteristic to make a great show with a little money, but this is certainly not the case at Brookside. No one standing by Mr. Leavitt's elegant new house, and looking towards the entrance into the upper story of the barn, would dream that there was so much money buried there. Seen from behind, the proportions of the edifice are correct, and the effect exceedingly pleasing, but from the house, it is very different. The *arched* wings and *square* cupola are rather incongruous, and the spire and plow on the top appear disproportionate, when standing nearly on a level with them. On entering the barn we were again disappointed, but this time agreeably so. We had expected to see evidence of a useless expenditure of money, but found nothing extravagant or inconsistent with the general design of the building, and with the object of its wealthy and public-spirited proprietor. On the contrary there are many things in it that might be advantageously adopted in the construction of barns generally; and, on the other hand, while there is much that cannot be economically carried out in common practice, yet the principles embodided are of universal applicability. We would recommend all who contemplate building to pay a visit to Brookside, feeling sure that they will be amply rewarded. They will find many things of much interest to which our space does not permit us to allude.

* * *

Timothy.—Have you not, Messrs. Editors, inquired oftener than you can tell, the origin of the name of the grass called Timothy? I have. Have you not yet oftener heard the question asked without any answer being given? I found the following in a little beautiful, interesting and useful book entitled The Green Fields and their Grasses, by Anne Pratt, London.

"There are several species, two of the cats-tail grass. One only is very common, but that one is to be found in every meadow. It is the common cats-tail or Timothy grass, (*Phleum pratense.*) This latter name it received from Timothy Hanson, who introduced it from New-York and Carolina, about the year 1780." A Subscriber.

Dorkings—Spanish—Feeding Boxes.

The Dorkings are among the best breeders and nurses for chickens of any variety we ever saw, the old Game fowls not excepted. They are also good layers, and they will dig over as much garden in a day as any other fowl, which fact goes to show that they will "scratch" for a living. They are mild, gentle and peaceable; the cocks are not pugnacious, but will fight against strange birds to desperation. They are also among the best fleshed fowls for the table. The Spanish fowls, on the other hand, are rather shy in disposition, but remarkably good layers; will probably lay more eggs in a year than the Dorkings, from the fact that they seldom sit. For the table their flesh is about medium in quality; as to size, ordinary, like the Dorkings, but large enough for all useful purposes. As to "garden diggers," they are about equal to the Dorkings and commmon farm fowls. As to laying eggs every day in the year, that is out of the question with any variety. Of course the "non-sitting" fowls will lay more eggs in a year than the sitting fowls. But as a general thing, the number of eggs depends more on the care and keeping of the fowls through the year, than on the variety. This is our experience so far. As to food, in this country, the best and most natural food is Indian corn. This fact to our mind is clear enough. When you throw out a half dozen different kinds of grain together, every kernel of corn will be picked up before any other grain. But a more economical food will be found in mixing grain together, say of corn, oats, rye and buckwheat, with wheat screenings and other grains for a variety.

The most common and wasteful practice to feed fowls, is to throw the grain on the ground. In case of Indian corn, it will be mostly picked up, but much of the smaller grain will be wasted. The right way is to feed them in "self-feeding boxes," where they can go and help themselves when they choose. In this way they will eat less food than when thrown out by the handful. These boxes are made in different ways We have two made like a table standing on legs, about twenty inches or two feet in length. This platform or table may be made of common boards, say four feet square, or four by five feet. On the center of this table place a stationary box which will hold twelve or fifteen quarts of grain. On this box, or outside of it, put an upright piece of lattice-work of half-inch stuff, and the slats say two inches wide. These can run up say twenty inches high, and on the top a cap roof can be put to shield the grain from the weather. The slats may be about two inches apart, and the box made from fifteen to twenty inches square. The fowls will come up on all sides of the table, put their heads through the slats, and feed on the grain in the box. A movable slat should be made to slide up and out, to put the grain in. A box of this size will feed from twenty to twenty-five fowls at a time. If rats or other vermin should trouble by getting into the box, this table may be suspended by wire from the rafters of the shed or poultry house. By throwing a few handfuls of grain on the table, the fowls soon learn to fly up, and then help themselves from the feeding box. Levi Durand. *Derby, Conn.*

Manufacture of Ta-feu.

We publish the annexed letter in explanation of a paragraph which recently appeared in this paper, with pleasure. Knowing as we did, the reputation of the gentlemen connected with the "Lodi manufacturing Co." who have been for many years engaged in the preparation of night soil for use as a fertilizer, we did not draw the inference from Mr. Johnston's remark, that there had been any intentional wrong, but only inferred that sufficient care had not been given to the preparation of the article; and we are glad to learn that even this inference was erroneous. While we shall fearlessly expose every attempt, which comes to our knowledge, to defraud our readers, we should sincerely regret to be instrumental in exciting an unjust suspicion against any one who is earnestly and honestly laboring, as we believe Mr. DEY to be, for their benefit. EDS.

After all, my Ta-feu has improved the growth of the wheat, but in pulverizing it to sow with Seymour's Grain and Grass seed Sower, and on sifting the Ta feu, I *got ten bushels of worthless refuse*, such as shavings, pieces of boards, old and new nails, and in fact almost everything but what should have been. This goes to show that we farmers are cheated in other manures besides "Chilian guano" from the New Jersey Manufactory. I don't doubt at all but Ta-feu, if genuine, is a cheap manure for wheat, at $20 per ton, the price I paid at New York; but it will not do to pay so much for such as I got, and pay carriage too. JOHN JOHNSTON.

MESSRS. EDITORS—The above, cut from the Co. Gent. of July 26, was brought to my notice a day or two ago, and no one was more surprised than myself to find that in a ton of Ta-feu, which we sold Mr. JOHN JOHNSTON, were "10 bushels of worthless refuse, such as shavings, pieces of boards, old and new nails," &c., and after turning over the matter in my mind more maturely, I have still to express my unqualified astonishment at it. As the publication of such a fact, accompanied by the remark that, "farmers are cheated in others manures besides Chilian Guano from the New Jersey manufactory," might injure us in some degree, we ask merely to explain how 10 bushels of what some might call refuse, could be got out of a ton of Ta-feu, stating also the fact, which you, Messrs. Editors, know very well, that the Lodi Man. Co. never made any Chilian Guano.*

The night soil, taken from the city of New-York, is filled with rubbish of every conceivable nature—for instance dead cats and dogs, straw beds, feather beds, old carpets, sheets, stove pipes, crockery ware, boots, shoes, watches, chains, gold, silver and copper coins, brooms, shavings, and (during the past 6 months only) over 10,000 whole brick, let alone brick bats, stones, coal and coal ashes. I venture to assert that the pile of accumulated rubbish for the last 6 months, will weigh 500 tons. The night soil is brought to us in vessels of about 70 tons each, and is unloaded on to an inch screen, which takes from it the bricks and large rubbish. It is then put upon drying floors, disinfected and dried; and as it is turned over by the men, they throw out all extraneous matter that can be picked out by hand. If it is to be manufactured into Poudrette it is taken into a house where it is allowed to undergo a partial decomposition, and again screened through a cross-barred half inch screen, and then barreled. If Ta-feu is to be manufactured, it is dried *perfectly* dry, and when in that state becomes cakey and hard, and is brought into the house, and without fermentation, is screened first through a half inch screen, and then again through a quarter inch screen. Now the shavings and other refuse, Mr. Johnston speaks of, must have been extracted by bolting through a hair or other fine sieve, and consisted, without doubt, of little lumps of night soil, mixed with hair, straw, and some plaster saturated with night soil. As to the old and new nails, it is only necessary to remark that old nails are worth $40 a ton, and new nails 3½ to 5 cents per pound, and could only have got there by accident. We were filling and coopering barrels at the same time that we put up the Ta-feu for Mr. Johnston, and a nail might have flown from under a blow of a cooper's adze into a heap of Ta-feu. As to the "pieces of boards," I cannot account for them; we do not keep a lumber yard—but possibly in shoveling the Ta-feu into the bags, a *splinter* from the floor might have got into it.

In conclusion I would state, that in the process of manufacturing the Ta-feu—the night soil was saturated with a solution of nitrate of ammonia; and every shaving, bit of rag, or straw, or other organic matter that was extracted by Mr. Johnston's sieve and thrown away by him as worthless, was filled with ammonia, and worth at least $30 a ton The word "cheat," Messrs. Editors, is a hard word to use, and strikes deep, and should be used with discretion, and upon strong foundations only. We do not think the occasion one which renders it necessary to append affidavits, or make any great fuss, but for the present content ourselves with the simple denial of the implied fraud—or cheat—and hope that the above explanation will satisfy any candid mind, and close by asserting that we sent Mr. Johnston a bona fide article, and one which we are willing to put to any fair test, alongside of guano, or superphosphate of lime, or any other manure. For The Lodi Manufacturing Co. JAMES R. DEY.

P. S. Mr. Johnston states himself that it improved the growth of his wheat. Now suppose he had used what he threw away, being ¼th of the whole quantity sent him—might it not have answered quite as well as the guano and at $30 per ton less price? We have raised the price $10 on a ton this season, for the reason that we put 25 per cent of No. 1 Peruvian Guano into the night soil, which adds just that much to its cost.

* * *

ASHES AND SALT FOR CORN.—A correspondent writes that a friend of his applied a mixture of unleached ashes and salt to corn, *and it killed the corn*. He applied the same mixture (with this difference the ashes were *leached*) to potatoes with good effect.

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* Mr. Johnston, in speaking of Chilian guano from the New Jersey manufactory, had no reference, as our correspondent seems to suppose, to the "Lodi Manufacturing Co."

The Wire Worm.

Messrs. Editors—Much has been said and written for a few years past, of the origin of the wire worm—its habits, and the means to be used to prevent its depredations on the crops of the farmer. Of its origin, most farmers seem to be ignorant. The following extract, if correct, will give much light on the subject, and coming from the source it does, it would seem to be reliable. It is taken from the London Farmer's Magazine, and appears to be part of a lecture delivered in England by a scientific man, on the different insects in that country. He says:

> The wire-worm, unlike the insects already described, does not confine its ravages to a single kind of crop; but almost every crop, either of the field or of the garden, may become its victim. It is a cylindrical worm, of a yellowish color, marked by very distinct rings, and covered with the larva of a beetle, called Elater. It lives for five years in the state of larva, becoming more and more destructive all that time, and then changes to an inactive pupa, from which the perfect beetle finally emerges. The perfect beetle or Elater is quite harmless.
>
> Numerous remedies have been proposed against the wire-worm. The use of the roller is by some strongly recommended, also the folding of oxen and sheep in the infected fields. Several chemical applications have also been used, such as lime, soot and common salt. A curious discovery has been recently made on this subject, namely, that certain plants have the power of expelling the wire-worm. These plants are woad and white mustard; and it is found that if a crop of either of these plants be taken from a field infested with the wire-worm, this pest will be completely expelled, and the field may be sown with the ordinary crops the following year. Hand picking is an obvious and most useful mode, and the farmer should be warned to protect rooks, which, though they do a little harm in eating up some of his corn, or rooting out a potato or two, do infinitely more good in destroying wire-worms and other injurious insects.

A correspondent of the *Country Gentleman*, a few weeks since, stated that the wire-worm would not eat the crops of peas, beans, and buckwheat. Of the two former, I have had no experience; but of the latter, I have never had a crop injured, while other grain crops, subsequently sown on the same land, have been nearly destroyed. For several years past, I have raised turnips (the Globe turnip) as a field crop, and some years they have been raised on land largely infested with the wire-worm, yet I have never had a crop injured by them.

My experience in relation to the ravages of the wire-worm, does not accord with that stated in the extract previously quoted, as the same kind of crop raised on the same land, one year would be nearly destroyed, while another year it would be uninjured. Three years since, I planted a field with corn, and the wire-worm nearly destroyed the crop. The next year the same land was planted with corn again, and I had as fine a crop of corn as I ever raised. Last year the same land, with additional strips of land on each side was again planted with corn, and the wire-worm destroyed about one-half of the crop. This spring the field was sown with rye, and seeeded down with herds grass. A short time since I harvested the rye, which was a very fine crop. By the way, I have never known the grass crop injured, when the land was seeded down to grass with a grain crop sown in the spring, and I have frequently had portions of a field of grain, swept entirely clean of the grain, while the grass seemed to grow all the better for it.

The principal reason of my planting this field with corn for three successive years, was, for the purpose of trying the effect of different kinds of manures on the land, and also different preparations of the seed previous to planting it. I have used on this and other fields, both green and composted manures, from the horse and cow stable, the hog-pen and the hen-roost. The manure has been applied in various ways, yet so far, I have been unable to see that the kind of manure, or the manner in which it is applied to the land, has any effect to prevent the depredations of the wire-worm on the different crops raised. With the various preparations for the seed previous to planting, and also the application of various things to the land both before and after planting the seed, which I have seen recommended, I have had no better success; and I have come to the conclusion that it is useless to attempt to destroy, or to prevent the ravages of the wire-worm by any application to the land or to the crop; being satisfied that anything that would destroy them, would destroy the crop also.

I have noticed in this vicinity, that the wire-worm does not seem to work on the grain crop after the season is so far advanced that the ground becomes thoroughly warmed and the crops begin to grow vigorously, which, here, is from the first to the middle of June. This year, having had a field of corn nearly destroyed by the wire-worm, before it was large enough to hoe, I concluded to try the experiment of sowing barley on the field. On the thirteenth day of June, I worked the land over with a cultivator, for the purpose of pulling up what few hills of corn remained in the field, and to incorporate the manure with the soil. The next day the field was sown with barley. Thus far there has been no indications of the crop being injured, and the prospect now is that I shall have a heavy crop of barley on the field.

These observations are given to the public with the wish that farmers in every section of country infested with the wire-worm, will continue to try by well conducted experiments, to discover if possible, how the ravages of this insect may be prevented. Those who do so shall be voted public benefactors. C. T. Alvord. *Wilmington*, *Vt.*, *Aug.*, 1855.

* * *

Early Frosts in New England.—The *Boston Cultivator* says: There was frost in this vicinity on the mornings of the 28th, 29th and 31st of August. The greatest damage was probably done to the cranberry crop, which we hear is much injured. We have seen but little corn that is much affected by the frost, though the cold atmosphere, in connection with drouth, retards its growth. Late planted potatoes on cold ground, were generally killed. We hear that the corn and potato crops in Maine suffered severely.

Notes for the Month.

Half an Hour in a Fruit Garden.—We have just spent half an hour in the fine garden of Elisha Dorr, Esq., of this city. Mr. D. is an enthusiastic horticulturist, and his grounds abound with the choicest varieties of fruits, especially of the plum. He has quite a number of excellent seedlings. Here is one, the *Henry Clay*, a large, beautiful and most delicious plum, now ripe. There is the *Wax Plum*. Last year, the tree, two years from bearing, bore half a bushel of fine fruit, and now it is loaded down. It ripens in October, when light-colored plums are gone. Here is the *Madison*, and the *Schuyler Gage*, both superior late varieties, very hardy and prolific. That tree loaded with such fine plums, is a *Coe's Golden Drop*, one of the finest of English plums. Mr. D. says it is very liable to crack in wet weather, and the curculio manifests a special regard for it. Many large bunches on the trees are rotting near the stem, where they have been stung. Here is a *Red Gage* very productive and decidedly accommodating, bearing this side one year and the other the next.

Mr. Dorr's garden is a stiff, hard clay, but by constant working, and digging in coal ashes, he succeeds in raising the finest of early vegetables. Here is as fine a plot of tomatoes as we ever saw, and there a beautiful lot of melons, the *Orange* and *Christina* among them.

Mr. D. has the largest and best *Bartlett* pears, on the pear stock, that we have seen this season. His clay soil suits them. All the trees have pieces of iron attached to the branches, from an idea that it keeps off the blight. The *Maria Louise* flourishes well on this soil, and is of excellent flavor. The *Van Mon's Leon le Clerc* cracks badly, both in wood and fruit. A number of seedling pears look very healthy.

Mr. D. has a fine lot of grapes. He manages to ripen the *Catawba* without difficulty. The vines are loaded, though some of them have "scalded" badly.

The Primate Apple.—We are indebted to our friends, Messrs. W. T. and E. Smith, Geneva, for a box containing very handsome specimens of this fruit. They say :—"We think them the most valuable of all our summer apples. They begin to ripen about wheat harvest, and continue until after this time."

Seedling Plum.—Mr Dingwall of this city has shown us a seedling plum which promises well. It is in our opinion of superior flavor.

Miller's Seedling Apple.—We have received from Mr. James O. Miller, Jr., Montgomery, Orange Co., specimens of a seedling apple, which received a prize at the last New-York State Fair, and was named "Miller's Seedling." Mr. M. says: "It is a good bearer every year, the apples being evenly distributed over the tree. The fruit is fit for use the middle of August, and ripens gradually until late in the fall, and may be kept until December." The specimens sent were of good size, quite ripe, juicy, sub-acid and of an agreeable flavor.

Testimonial to Mr Lawes.—We have previously mentioned that the friends of J. B. Lawes, Esq, had proposed to erect for him a laboratory, and in connection with that to present also an additional testimony of their approbation of the benefits he has conferred on the agricultural interest by his numerous experiments. The presentation took place with some ceremony on the 19th of July last, the Earl of Chichester presiding on the occasion. The testimonial was a silver candelabrum with appropriate ornaments, on which was the following inscription :—

"Presented to John Bennett Lawes, Esq., as an heir-loom, at the same time with a laboratory erected for him by public contribution on his estate, Rothamsted, Hertfordshire, in acknowledgement of the services he has rendered to the science and practice of agriculture, July 19, 1855."

We take the above from the *Bston Cultivator*. Mr. Lawes has dovoted a large farm on his estate in Hertfordshire, England, to experimental purposes for a dozen years past. He erected on the farm, some years ago, a large laboratory for Dr. Gilbert, who is associated with him in these investigations, and also fitted up a large barn and other buildings with chemical apparatus. These for a time afforded ample accommodations, but the investigations have been yearly extending and specimens have accumulated so fast that it was found difficult to stow them away in safe and appropriate places. Mr. Lawes for sometime has intended building a new laboratory, and had the plans prepared, but as he expressed it in a letter to us, some time since, "he shrank from the expense." We cannot but rejoice that the friends of Mr. Lawes concluded to present so *useful*, as well as so magnificent a testimonial, and all will be glad to learn that Mr. Lawes has made such arrangements that, in case of his death, the laboratories, buildings, apparatus, and the experimental fields can be still used for the advancement of scientific agriculture.

High Farming.—In his recent lecture on the "General Condition of British Agriculture," Mr. Mechi stated that Mr. Hudson of Castleacre, "one of the late Lord Leicester's best tenants," has used on his farm £50,000, say a quarter of a million of dollars, worth of oilcake, and £25,000 worth of artificial manures. We are acquainted with this farm and its management. The oilcake is used in fattening cattle and sheep in conjunction with turnips; the artificial manures consist principally of Peruvian guano, rape cake, and superphosphate of lime—the later is used for turnips, *drilled with the seed*, at the rate of from 200 lbs. to 400 lbs. per acre. The home farm of Mr. Hudson contains only 1800 acres. His neighbor Mr. Matthews, occupies between three and four thousand acres. We saw at the time of our visit, *twenty-one two horse teams* plowing in one field. There were nearly one thousand acres of turnips on the farm, and we believe all of them had from two to four hundred lbs. of superphosphate of lime drilled with the seed. One field of 125 acres of ruta bagas was manured with half a ton of rape cake per acre, sown broadcast and plowed in—and with 400 lbs. of superphosphate, drilled with the seed. A finer crop we have seldom seen. It would doubtless average 25 tons of bulbs per acre. When we recollect that these lands were a few years ago sterile blowing sands, we shall be convinced that judicious "high farming," can work wonders, and is not unprofitable, *with good prices.*

Beauty and Poultry.—We have been favored with the programme of two exhibitions to be held at Gallatin, during the week of the Tennessee State Fair, commencing Oct. 15—one, is to consist of a grand display of Daguerrean portraits of such ladies as will furnish them, from which one is to be selected as "the Tennessee Beauty"—to be enclosed in gold, and sent to Barnum. The other exhibition, is to be a "most unique and extraordinary display of Domestic Fowls, &c., to include specimens of all the rare, fancy, valuable, and superb poultry in the union."

☞ The attention of Nurserymen and Fruit Cultivators, is invited to the "Nursery Stock" advertisement of Mr. Thorburn, who offers for sale the entire stock belonging to the late firm of Wilson, Thorburn & Teller. The sale is rendered necessary by the death of Mr. Wilson, and in order to close the business at an early day, great inducements will be offered to purchasers.

Ledyard Town Fair.—Our enterprising friends in Ledyard, Cayuga County, N. Y., held their Town Fair at Aurora, last week. The attendance was large, and the competition quite spirited. There was no charge for admittance, and beautiful diplomas were awarded as premiums.—"There were over 175 articles entered and 120 diplomas awarded." W. H. Bogart, Esq. delivered a short but interesting address to at least 300 persons.

Renovating old Meadows.—One word in answer to G. A. H. I have been troubled with such meadows in New York State, and spent time and money to improve them, but found it would not pay, and sold them and moved into Rock county, Wisconsin, where I can raise grass and all kinds of grain cheap and easy. Timothy seed, ashes, leached or unleached, and cross-dragging will improve your meadow ten fold in one year—plaster on dry land is best. *Magnolia, Wis.*

Cheese Factories.—I read a piece in the Cultivator a few days since, telling how people may make cheese from but few cows. With your leave I will give another method. It is known to many of your readers that there are cheese factories on some parts of the Western Reserve, where the cheese from a large extent of country is made. It seems to me that a similar plan might be adopted in neighborhoods where but few cows are kept, provided all hands would consent to be a little good-natured about it. Let each family run up their milk in the morning, and at a certain hour in the day let the one that is to do the pressing for the time go around and gather the curds and put them together. Each family might do its own pressing in turn or one might do it for the whole company just as they could agree. It seems to me that by some such arrangement people having but few cows might make just as large and nice cheese as dairymen keeping their twenty or thirty cows. J. D. B.

Soap and Sulphur Injurious to Young Trees.—For six weeks past, we have been greatly troubled, in this section, with locusts. They have been particularly destructive on young fruit trees; and having, this spring transplanted some into my orchard, of a favorite kind, I was very anxious they should not be injured by them as they were making sad work on some older trees in my orchard, and also in my neighbors'. For this purpose I made a mixture of soft soap and finely pulverized sulphur, and with a brush applied it to the trees, giving the whole tree, leaves and all, a good coating. Judge of my surprise, when, two hours after, on going to the orchard, I found my *favorites* killed, not by locusts, but by my soft-soaping experiments.

It is quite common here for nurserymen to apply soft soap, in winter and early spring, to their trees to prevent rabbits from peeling them. But it will not do, to apply soap and sulphur, in summer, to the young and tender growth. Thos. P. Cooper. *Louisville, Ky., July 5th,* 1855.

Grazing in Texas.—Extract of a letter from a subscriber at Bastrop, Texas:—"I see from a recent No. of the Country Gentleman, that a lot of beef cattle, all the way from Texas, passed through your city on their way to New-York. If any beef cattle can be carried so far to market, certainly ours can, for they grow and fatten on our extended prairies, and, aside from branding and marking, a four year old steer costs but little more than a chicken, and nothing like so much as a *Shanghai.*"

No Caterpillars in Missouri.—It may be a *fact* worth noticing, to state that *heretofore*, this section of country has been greatly infested with *Caterpillars*, requiring much attention to free our *orchards* of them, but this season, there is not the *first vestige* of one to be found, nor a *nest* to be seen, even on the *wild cherry* and *plum*, heretofore literally *covered* with them. I attribute their disappearance to the unparalleled *hot* and *dry* season, last year. Is not that the *true* cause? C. *St. Louis, Mo.*

Rockland Co., N. Y. Sept. 6.—The potato harvest is already commenced, and serious fears are entertained of the rot, though there is an abundant yield. Sagacious farmers will hold on to their better kinds and refuse to sell at the low prices at present ruling. Should the rot prove to be so extensive as is at present anticipated, and as malignant, the result will probably approve their discretion. The corn harvest will begin here within a week, and a more abundant crop than will thus be gathered never made glad the heart of the husbandman. The fall plowing is progressing finely and there will probably be a very *broadcast.* H. A. C. S.

Progress in Maryland.

One might infer from the remarks of some of our agricultural orators and writers, that there was danger of a famine from the rapid deterioration of our farm lands, and we frequently see particular districts pointed out as in a state of almost entire unproductiveness—among these are Dutchess and Columbia counties in this state, and portions of Virginia and Maryland. That there are many farms whose soils are becoming exhausted, in all parts of the country, we do not doubt; but that, as a general thing, our agriculture is becoming less productive, we believe to be a slander upon the intelligence of the age. Take, for instance, the localities we have named, and we believe that it will be found that there has been for fifteen or twenty years a steady increase in the productiveness of the farms. We give below an extract of a letter from Maryland, which affords proof of progress in that state, and we should be greatly obliged if some of our readers in Dutchess and Columbia, would inform us whether there has been any improvement in those counties during the last 15 or 20 years. The writer, who dates at Stockton, says:

"I may observe, that the average crop of wheat is about 20 bushels, corn 60 per acre. Ten to twelve years ago, but little or no wheat was grown in the neighborhood. Families who used wheat bread, obtained their flour from Baltimore. Corn was the principal article of food, and that was raised in small quantities. Farms were poor, fences down, houses neglected, and every thing bearing marks of want of thrift.

"A change has, however, taken place. A number of persons purchased these worn-out lands, built comfortable houses, and commenced a thorough renovation of the soil, and by the aid of bone dust, guano, and other manures, they have a beautiful productive country. Land has increased from $5 to $20 per acre up to the price now asked, of from $50 to $100, the latter with good improvements. There are now two large merchant mills, which are constantly employed in grinding wheat, and most of it obtained from the immediate neighborhood."

THOMAS GOULD,

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Durham Cattle, Suffolk Swine,

Madagascar or Lop-Eared Rabbits, English Ferrets,

GUINEA PIGS,

Dorking and Brahma Fowls,

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AUCTION SALE

Of Thorough-Bred Devon Cattle.

THE subscriber proposes to sell at auction his entire herd of Thorough-bred, "Herd Book" Devonshire Cattle, on Wednesday the 17th October next, at his Farm, 2½ miles from Troy, N. Y., comprising 11 head of Breeding Cows, and about 9 head of Bulls, Heifer and Bull Calves. The originals of this fine herd were selected with great care, through importations from England and purchases in this country; and they have been bred with equal care, and all will admit on examination they are a splendid herd of this popular breed of cattle. Among the herd is the beautiful 3 years old imported Bull "May Boy," bred by John T. Davy, Esq., of South Moulton, Devonshire. England, and Editor of the English Devon Herd Book. This Bull, as will be seen by his pedigree, is descended from the highest strain of blood that England affords, and for perfection in symmetry, vigor and sprightly action, it will be difficult to find his superior. His get, as will be seen in the herd, will attest his superiority as a stock getter. There is also among the herd a beautiful 4 years old heifer and her Bull Calf. She was imported from the celebrated herd of Lord Leicester. A credit of 12 months will be given for approved paper, on interest. Catalogues of the animals will soon be issued, with pedigrees and further particulars, and may be procured at the offices which publish this advertisement, and of the subscriber. GEO. VAIL.

Troy, N. Y., August 30, 1855—w7tm1t

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V.—Food—Articles of, Composition of, Preparation of, Assimilation of, Indigestion of—Principles of Feeding, Practice of Feeding, Pasturing, Soiling, Feeding at Straw Yard.
VI.—Water.
VII.—Service, General Preparation for Work, Physiology of Muscular Exertion, Preparation for Fast Work, Treatment after Work, Accidents of Work, Repose.
VIII.—Management of Diseased and Defective Horses, Medical Attendance.

"I have aimed in this Work TO MAKE PRACTICE THE MASTER OF THEORY, and have endeavored to arrange the whole subject into divisions which will render every part of it *easily understood* and *easily referred to by every one.*"—*Author's Preface*

"The Horse has been a favorite study with me from childhood, and for twenty years I have been more or less engaged in breeding and rearing them, on my own farm, and breaking and fitting them for market. I also had, during a residence of two years in Europe, the advantage of Studying the Stable Economy of large Military Establishments, and to inform myself by personal inspection on the subject of the Horse in general, and particularly his rearing and stable treatment, and in so doing examined alike the Thorough Bred, the Hunter, the Roadster, the Farm and Dray Horse. A. B. ALLEN."—*American Editor.*

THE HORSE'S FOOT,

AND HOW TO KEEP IT SOUND.

WITH ILLUSTRATIONS.

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Sept. 20—w2tm1t

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HEIFERS, and Bull Calves—pure blood—for sale by
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May 24—m12t*

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AT PRIVATE SALE.

L. G. MORRIS' ILLUSTRATED CATALOGUE, with prices attached, of Short Horned and Devon Bulls and Bull Calves, a few Horses, South Down Rams, Berkshire, Suffolk and Essex Swine, will be forwarded by mail (if desired.) by addressing L. G. MORRIS, Fordham, Westchester Co., N Y., or N. J. BECAR, 187 Broadway, New York. It also contains portrait, pedigree, and performances on the turf of the celebrated horse "Monarch," standing this season at the Herdsdale Farm. May 3, 1855—w&mtf

---

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A FEW pair fancy Lop-Eared Rabbits at moderate prices, very fine specimens, delivered at Hudson.

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BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
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Devons, Herefords, Ayrshires,
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Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

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Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
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The Lodi Manufacturing Company
No. 60 Courtland street,
May 31—w&m4m New York.

NO. 1 PERUVIAN GUANO.

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GRIFFING & BRO.,
Aug 23—w8tm3t 60 Cortlandt-st., New-York.

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Ammoniated Super-Phosphate of Lime.

THE above valuable compound is warranted pure and genuine. The manufacturing department is under the personal direction of the subscriber, and will have studious attention as to his preparation at all times being uniform in its component parts. Many experiments during the past year, with the above brand, in equal quantity with Peruvian Guano and other concentrated Fertilizers, scrupulously testing its value as compared with the latter, by various State Farms, public Agricultural Committees, &c., have been made, showing a preference for it as a manure, both as to early inducement and prolificness of growth. Pamphlets will be sent on application to the subscriber, containing full directions for use, &c.

C. B. DE BURG,
Sole Proprietor and Manufacturer,
June 14—w&mtf. Williamsburg, L. I.

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag. Price $52 per ton of 2000 lbs.

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As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure 2 under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
July 19—w9tm3t New-York.

HORSE POWERS,

OF the most improved Patents.
THRESHING MACHINES, with Separators,
CIDER MILLS, Hickok patent,
HAY, STRAW, AND STALK CUTTERS,
CORN SHELLERS. CLOVER HULLERS,
DOG POWERS, FANNING MILLS, &c. can be furnished at the North River Agricultural Warehouse.

GRIFFING & BRO.,
Aug. 23—w8tm3t 60 Cortlandt-st., New-York.

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H. W. PITKIN,

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G. G. SHEPPARD, New-York—P. B. MINGLE, Philadelphia—BYRAM, PITKIN & Co., Louisville, Ky., wholesale Agents.

Apply as above. April 5—w2m2m

Virginia Land for Sale.

THE subscriber having yet a few Farms for sale from his large and valuable tract of land situated in the county of Fairfax, Virginia, on and near the Turnpike leading from Washington and Georgetown to Leesburgh, 16 miles from the city of Washington, two miles from the Canal, and within 3 miles of the Alexandria, Loudon and Hampshire Rail Road. The soil is of the first quality, of a deep red color, seldom affected by drouths to which most lands are subject. Adapted to grain, plaster, clover, and all kinds of grass. The land will be sold in lots of 100 or 200 acres, or as the purchaser may desire. Every Farm will be well supplied with wood, which consists of oak, chestnut and second growth of pines. Persons wishing to purchase would do well to call and examine before purchasing elsewhere. For further particulars, inquire of the subscriber on the premises.

S. S. MILLER,
Aug. 1—m5t Spring-Vale, Fairfax Co., Va.

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July 19—m3t* Burlington, Racine Co., Wis

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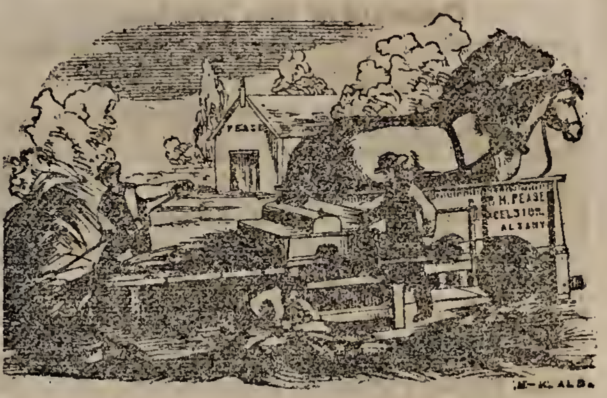

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Warehouse and Seed Store,

No. 369 and 371 Broadway, Albany, N. Y.

THE subscriber is prepared to furnish to order a full assortment of Farm Implements and Machines, adapted to all sections of the country both north and south, among which may be found

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" " Threshing Machines with Separators.
" " Cider Mill, Krauser's Patent.

Mowing and Reaping Machines, Grist Mills, Corn Shellers and Clover Hullers; Circular and Cross-cut saw mills adapted to the Horse Power, for cutting fire wood, fence stuff &c. Also a general assortment of Fertilizers.

July 19—w&mtf RICH'D. H. PEASE.

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Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

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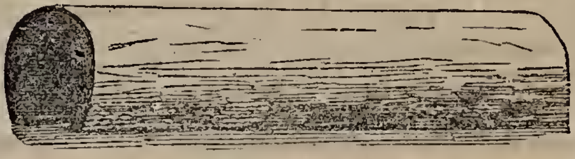

PIECES.

4½ inches calibre,	$18 per 1000.
3½ inches calibre,	15 per 1000.
2½ inches calibre,	12 per 1000.

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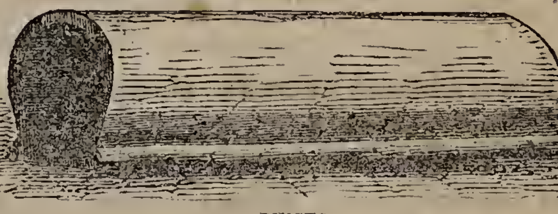

PIECES.

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3 inches calibre, at	18 per 1000.
2 inches calibre, at	12 per 1000.

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Orders from all parts, will be thankfully received and promptly attended to.

Address APPLETON & ALDERSON,
195 Washington-st., Albany, N. Y.

May 31—weow&m5m

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Also, for sale, a large collection of the best hardy Ornamental Trees, Shrubs, Flowering Plants, &c., among which are the most brilliant varieties of Roses, the finest Spiræas, Pæonias, Phloxes, &c.

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14,000 Standard Pear, with fine heads, 4 to 10 feet high.
4,000 Plum, 4 to 10 feet high.
1,600 Cherry, 5 to 12 feet high, with fine heads.
2,000 Peach, 1 and 2 years from the bud.
3,000 European Lindens, 2 and 3 years, very fine trees, with fine heads.
3,000 European Mountain Ash, 1 to 3 years.
5, 000 Norway Spruce.
1,000 European Larch, 100 Tulip Tree.
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Also, Pear, Apple, Plum and Cherry Stocks. The Fruit trees embrace all the very best varieties for extensive cultivation, and are of fine, healthy growth.

Personal inspection of the trees at the Nursery, preferred to correspondence. A liberal discount for cash, as it is desirable to sell for *cash*, instead of on credit. Catalogues to be had on application, or by mail, directed to

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We can confidently assure the public that this extraordinary fruit fully sustains its reputation, being of mammoth size, with fine melting pulp and rich flavor, is perfectly hardy, and requires no extra care in its cultivation.

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LUTHER TUCKER, *Albany, N. Y.*

FORBES.
VAN VRANKEN. N.Y.

THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. III. ALBANY, NOV., 1855. No. XI.

Our Circulation Next Year.

In the last number of THE CULTIVATOR we stated that there would be no change in its Terms for 1856, and that we had been for some time past much encouraged by the large increase in its subscription lists. Since then we have had opportunities, by the personal intercourse of ourselves and associates, to learn from many friends of long standing in all parts of the country, something of the prospects with which our publications will enter upon a new year.

Their representations have led us to hope, and on what we think the very best grounds, for the successful and enlarged continuance of their efforts in behalf of our papers, and for such an extension of our "constituency" in 1856, as has perhaps never before taken place. An idea suggested by an Indiana agent and friend, who said by the way that his Club for THE CULTIVATOR (of upwards of twenty members) would be more than doubled the ensuing winter, and that he should probably make up also a club for the COUNTRY GENTLEMAN—struck us so forcibly that we wish to call to it the attention of every reader of this paper.

His words were to the following effect: "In what I have done, and that for a long course of years, to promote the circulation of THE CULTIVATOR, I claim not the slightest merit for disinterestedness or for the free outlay to which I have been put, of both time and money. I have felt it to be the PRIME INTEREST of every *farmer* to induce his neighbors to read; and I know that I have reaped a large return for every trouble and expense incurred, in the advance of intelligence and of the actual value of property, that has resulted in my vicinity from the perusal of your publications."

Our own experience of many years, and the opinions of the highest authorities on this subject, agree with the views of our friend. It is on this account with far less delicacy that we earnestly press EVERY READER AND SUBSCRIBER to do something to add another to the company of readers and subscribers for next year. That he will be amply repaid for the effort, we are just as confident as that we ourselves return the full value of the subscriptions sent us. In the course of a long acquaintance with publications of every kind, we have known of nothing which will compare in *cheapness*—considering not at all the BEAUTY and VALUE of what is furnished, but the *quantity* merely,—with our plan of clubbing THE CULTIVATOR and ANNUAL REGISTER at *Fifty Cents.*

And the good done is not to a neighborhood, a town, a county only—its far-reaching influence extends through the whole land, where it has been at work for years, and where its power of benefit should be proportionately enlarged to the increase in population and the advance of improvement. "An intelligent and well informed gentleman from the South," says Hon. Z. PRATT, "once asserted that through the influence of the Albany CULTIVATOR alone, the wealth of that part of the country had been increased more than two millions of dollars."

We trust these considerations will receive the thoughtful attention of ALL, and that they will act upon their convictions of the moral conveyed.

The Terms of THE CULTIVATOR will, as above stated, continue to be—

FOR A SINGLE COPY,..............	FIFTY CENTS.
FOR TWENTY COPIES, with REGISTER for 1856 to each,................	$10.00

In regard to the contents and "getting up" of Number Two of the ANNUAL REGISTER, we refer to the last page of the supplement of this number. While their comparison by the side of those of Number One can but result favorably, we do not claim superiority for either over the other, but for both over anything of the kind that has ever appeared in this country.

We ask attention also to the addition of no less than TWENTY PRIZES to the List as offered last year. These will cover a large number of cases in which nearly equal labor is expended, and which last year received no "material" acknowledgment of their exertions.

☞ We shall endeavor to send without delay, to those on whom we chiefly depend for sustaining and increasing our circulation, a copy of the ANNUAL REGISTER, for use in canvassing. Some, even of our best Agents, may perchance be accidentally omitted; we trust any of these, or any friend disposed to aid in the cause of American Agriculture and Rural Improvement, will write us for a copy and for specimen numbers, and go to work with them as earnestly as their deserts and his own circumstances will admit. It will be seen that we renew, with the two very important additions mentioned, our last year's offer of

PREMIUMS TO AGENTS.

As an inducement to Agents to exert themselves to form Clubs, aside from the consciousness of the benefit they will confer upon their neighbors by placing such a journal in their hands, we offer the following list of Premiums to those who send us the largest amount of cash subscriptions to our journals for the year 1856, previous to the 10th of April next:

1. For the largest amount,. FIFTY DOLLARS.
2. For the next largest,.... FORTY-FIVE DOLLARS.
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4. For the next largest,.... THIRTY-FIVE DOLL'S.
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6. For the next largest,.... TWENTY-FIVE DOLL'S.
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11. For the TEN next largest Amounts, Each a Bound Set of the Six Quarto Volumes of the Cultivator, from 1838—1843 inclusive.
12. For the TEN next largest Amounts, Each a Volume of the Transactions N. Y. State Ag. Society for 1854.

Agents who compete for the above prizes must, in all cases, remit with their orders, at the rate of Fifty Cents for each copy of THE CULTIVATOR, and One Dollar and Fifty Cents—(the lowest club price, where ten or more copies are taken)—for each subscriber to the COUNTRY GENTLEMAN.

☞ One suggestion we ought to make. That *all the labor* of securing clubs ought not to be left with one Agent—but that every one should endeavor to co-operate with him in obtaining and increasing the subscriptions which he bears the trouble and expense of forwarding to us. This will assist both him and us, and will enable ALL to work together in the common cause.

BUSINESS NOTICES.

If our correspondents will read and remember, when writing to us, the following notices, they will save us much trouble, and greatly increase the certainty of a prompt compliance with their orders:

Dating Letters.

☞ It is of the greatest importance, that every person writing us should give his full Post Office address—naming *Post Office*, *County* and *State*—for instance, as follows:

Shutsville, Jefferson Co., Ky., Oct. 1, 1855.

If all our correspondents would thus commence their letters, and be careful to write their names plainly, it would save us much labor and vexation, and secure a prompt and correct fulfilment of their requests.

☞ Great care should be taken to write the name and address of each subscriber distinctly, thus:

"*John Smith,....Lenox,....Berkshire Co.,....Mass.*"

Register for 1855 or 56.

☞ Gentlemen ordering the ANNUAL REGISTER, are particularly requested to specify the one they want, whether for 1855 or 1856.

Postage on Our Publications.

On the Cultivator, per year,...............	6 cents.
Country Gentleman, per year,............	26 cents.
except in Albany county, where it is free.	
Illustrated Annual Register, if *prepaid*....	2 cents.
Payable *where delivered*................	4 cents.

Agents can remit, at *two* cents per copy for the Register, and have the postage paid here, or let the subscribers pay four cents on delivery, as they prefer. The postage on the papers must be paid quarterly in advance, *at the post offices where delivered*.

Subscribers in British Provinces.

We have to pay the United States postage on all papers to the British Provinces; and this we cheerfully do, to all subscribers who pay the single copy price of $2.00 for the Country Gentleman, and Fifty Cents for The Cultivator; but on all clubs, the U. S. postage must be added. Hence our club terms to them for the latter will be—

20 copies and the REGISTER to each,........	11.60
And for the COUNTRY GENTLEMAN,	
3 copies..................................	$5.75
10 copies,................................	17.50

Connecticut State Fair.

The second annual Connecticut State Fair came off last week with great *eclat*. The New-York Tribune's "Own Reporter"—we presume Solon Robinson—speaks of it as a "credit to the state, and worthy of any state in the Union." On the first day, he writes:

> The entries of stock exceed any show, I believe ever held in this country, in point of numbers; and as for excellence of some of the animals of all the varieties, I must say they will be hard to beat.
>
> There are already eighty-eight entries of Durham cattle; ninety-seven entries of Devons; 100 entries of grades; thirty-two entries of natives; eighteen entries of Alderneys; nine entries of imported cattle; eleven entries of fat cattle; three entries of extra cows! and 102 entries of working oxen; making a total of over 600 head of horned cattle, and more still coming, and by far exceeding all the expectations of the officers of the society, so that there is a deficiency of stalls.
>
> There are 427 entries of horses, and a great many of them are pairs, so that we may reasonably calculate on 600 horses to be displayed in one grand cavalcade upon the course, which is graded nearly level, and a broad smooth track, with an amphitheatre of seats for 3,000 spectators. The entries of sheep, swine and poultry, number 184, nearly all of which are sheep, which probably exceed 400. The poultry show is small, considering all the crowing we have heard for some years past.
>
> There are 151 entries of plows and other agricultural implements, making a very handsome show.
>
> The entries of farm produce and dairy products number 356, which is far in excess of the show at Elmira. There are 219 entries of household manufactures and articles of woman's workmanship.
>
> The entries of manufactured articles number 336, but if any one expects to calculate the number of articles by the number of entries, he must use a large multiplier, for some of the exhibitors count by the thousand. It is a feature in the exhibition, that tells a story of deep interest, of the inventive genius and manufacturing industry of Connecticut.

The trial of working oxen appears to have been an attractive feature of the exhibition. Several pairs moved the load of 5050 lbs. with ease, backing it, &c., handsomely. On Thursday morning there was a cavalcade of over 100 yoke.

The receipts were quite large, and the farmers of Connecticut may boast that their second State Fair was one of the most successful of the season.

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Soot does not benefit the clover plant, while for wheat, timothy and other cereals, it is found most valuable.

Editorial Correspondence.

Rhode Island Horse Exhibition—Fair of the Philadelphia Society for Promoting Agriculture, &c.

I did not get to Providence till Tuesday evening, not knowing that the show of cattle, sheep, &c, lasted but one day. Such, however, proved to be the case, Wednesday, Thursday and Friday being devoted exclusively to the Horse Exhibition. Though, thus, literally the "day after the fair," I was in time to hear the excellent address of B. P. Johnson, Esq., on Tuesday evening, and to see the "Grand Cavalcade," of horses, horticultural exhibition, &c, on Wednesday. The show of horses was the *largest* I ever attended. The arrangements were excellent, and though the weather was hot and dusty, the attendance was good and everything went off pleasantly. The show of fruits and flowers was highly creditable. Lewis Dexter, Springfield, exhibited a fine lot of pears; his Bartlett, Doyenné Boussock, and Louise Bonne de Jersey, we have seldom seen equalled. D. H. Leonard, Seekonk, showed a good lot of pears and other fruits, among them some fine Onondaga or Swan's Orange and Maria Louise. R. Dalylish, John J. Stimson, Providence, and Silas Moore, Cranston, showed some good pears and other fruit. E. B. Pitcher, Pawtucket, exhibited the largest Crawford's Early peach I ever saw. P. Harney also showed some which though not so large were of better quality. He also exhibited some fine Duane's Purple plums. Ezra Hubbard exhibited a magnificent lot of Asters. I did not know there was so much horticultural skill and taste in little Rhode Island.

From Providence, I came here to Philadelphia, where the Annual Fair of the Philadelphia Society for promoting Agriculture, incorporated in 1785, is now being held. The attendance was very large, and the Show, though not quite what I expected from the high character of this long established society, was on the whole quite good. Here, as elsewhere, the horse ring, and the "Trial of Speed," seemed to attract the most attention. We must take care that our Agricultural Fairs do not degenerate into the demoralizing Horse Race!

There was some good Devons exhibited by G. F. Curwer, Lower Marion, and by J. C. Longstreth, White Marsh, Isaac Newton and others. In Durhams, Dennis Kelly, Henry Palmer, Owen Shinda, and Charles Kelly were the prominent exhibitors. Dr. Twaddell, Maylandville, Mr. Saplee and others showed some good Alderneys. In sheep the show was quite poor in numbers and quality. The Tartary sheep exhibited by Dr. G. Emerson, were a curiosity, but we do not see in what respects they are likely to prove valuable. They are said to be about as prolific as rabbits! but is it desirable to have sheep that produce lambs three or four times a year and four or five at a birth? There were a few fair Berkshire, Suffolk and Chester county swine, but nothing extra. The Show of Poultry was good. Dr. Crabb, West Philadelphia, exhibited some "White Japan Silk Fowls," which were quite a curiosity.

There was a large show of excellent agricultural implements, machines, &c., and a fine display of fruit, seeds, vegetables, &c. The latter would have been much better, but that the Horticultural Society held their exhibition on the same days, in a large tent in Philadelphia. I spent several hours there, last evening, but the crowd was so great that it was impossible to make that minute examination the fruits, flowers and vegetables exhibited deserved. The show of plants in pots, including grapes, pine apples, &c., is the finest I have seen in this country. It is the great feature of Philadelphia horticulture. The show of apples, pears and peaches is good, though not quite what might be expected. Here is a basket of Seckel pears from E. B. Duval, Prince George Co., Md., that are very large and fine; and these nectarines from the garden of Caleb Cope, Philadelphia, are unsurpassed. Dr. Brinkle made a fine display of fruits; among them I noticed six *Shanghai* peaches weighing seven ounces each. Like Shanghai fowls, their appearance is not very prepossessing. These sweet potatoes from New Jersey, are as large as mangel wurzel, and probably about as good!

Rochester, N. Y., Sept. 16.

I left Philadelphia last evening, and arrived here this morning, in time to witness the Annual Exhibition of the Genesee Valley Horticultural Society. As compared with Philadelphia, the show of *plants in pots* is very meagre, and there are no peaches; but in everything else, it is intrinsically far superior to any exhibition I have ever seen. The dahlias, roses and phloxes are perfectly exquisite, and some idea may be formed of the extent of the show, when it is known that one nursery firm alone exhibited 138 varieties of roses, 70 varieties of dahlias, and 52 varieties of phloxes!!! In fruits, Western New-York can beat the world, either in quantity or quality; and all that need be said of this exhibition is, that it represents better than at any previous show, the horticultural skill and taste of Rochester and its vicinity. The nurserymen were of course the largest exhibitors, although many private gentlemen and farmers showed excellent collections. For instance, N. & E. S. Hayward of Brighton, showed 40 varieties of apples, and James Upton of Greece, 30 varieties. Mr. Salter, the gardener to J. F. Bush, 40 varieties of pears, 20 of apples and 6 of grapes. Selah Matthews, Esq., a large and excellent collection of pears, flowers, &c. In pears and apples, the exhibition at Philadelphia is not to be compared with this one, either in number or quality. Pears this season are generally smaller than usual, but it is not the case with the specimens exhibited. There was but one dish of peaches shown. They were Crawford's Early, and superior specimens, grown by J. Richards, Brighton, on a bough that accidentally was covered with snow during the winter.

P. Barry, Esq., late editor of the *Horticulturist*, was called out and made a few extemporary but appropriate remarks on the rise and progress of horticulture in Western New-York, and exhorted the members to be prepared for the great American Pomological Society, which is to meet next year in this city. The attendance was unusually large, and the occasion one of great interest. H.

Rape-Cake—What is it?

In the *Country Gentleman* of the 30th ultimo, you give a report of certain experiments instituted by Mr. Paine of Surrey, England, wherein it is assumed that rape-cake is a *carbonaceous* manure;—a mistake which could only have been made by a person singularly ignorant of chemical science.

The same mistake was made by Mr. Lawes in his Report of the Rothamsted Experiments; and yet you seem, inadvertently, to have overlooked this blunder of Mr. Lawes in your observations on the experiments of Mr. Paine.

Rape-cake is *not* a carbonaceous, but a highly *nitrogenous* manure,—valuable, when its nitrogen is converted into ammonia, as a *solvent* of the mineral phosphates by making them available as plant-food, and answering as Liebig has irrefragably demonstrated, no other purpose. In his "Relations of Chemistry to Agriculture," in a note at the foot of page 60, occurs this language:

> "In many of Mr Lawes' experiments, he has added *rape-cake* to his mixtures, in order "to supply a certain quantity of *carbonaceous* substance, in which both corn and straw so much abound." For this purpose he could hardly have selected a *worse* material; for *rape-cake* is one of the most highly *nitrogenous* manures, and is also rich in mineral matters, (phosphates.) According to Way, it contains 5½ per cent of *nitrogen*, and 8 per cent of ashes. As concerns nitrogen, 100 parts of *rape-cake* are equivalent to about 62 per cent of *good guano*. The action of *rape-cake* is characterized throughout by Mr. Lawes, as that of a manure rich in *carbon*."

The same mistake, I have seen repeated time after time, notwithstanding repeated contradictions, in the agricultural papers;—giving therefore some appearance of truth to the observation of a celebrated Satirist, that it is easier to get men to believe a thousand old falsehoods than to accept one new truth, and that a falsehood once established among the prejudices is more difficult to dislodge, than it is to get men to abandon truths of familiar and life-long acquaintance. Let us hope that this one, at least, has received its final *quietus*. H. A. C. S. *Blauveltville, N. Y.*

Rape-cake differs somewhat in composition, but an average sample contains say 12 per cent. water, 5 per cent. nitrogen, and 8 per cent. ashes: the remaining 75 per cent., consisting of carbon, hydrogen and oxygen, it is usual to designate as carbonaceous matter. That is to say, leaving out the water, *eighty seven per cent. of rape cake is carbonaceous matter.* Nevertheless, rape-cake may be considered a nitrogenous substance. Even Mr. Lawes is in the habit of designating oilcake, which is nearly identical in composition, as a "highly nitrogenous food," and under certain circumstances he would unquestionably speak of rape-cake as a nitrogenous manure. In fact, if our correspondent will examine what he is pleased to term "Mr. Lawes' Report of the Rothamsted Experiment," he will find the fact that rape c ke is a nitrogenous substance frequently alluded to. We have heard both Mr. Lawes and Dr. Gilbert regret that rape cake was so nitrogenous and that it was difficult to get a manure containing little or no nitrogen and a large quantity of *available* carbonaceous matter. On some of their plots, both in the wheat and turnip experimental fields, Mr. Lawes has used large quantities of ground rice, as the most carbonaceous manure that could be found, but even this our hypercritical friend might term a *nitrogenous* manure, and quote Liebig to prove it. Will H. A. C. S. tell us what manure Mr. Lawes could use that is not nitrogenous? He has used oil, but unless chemically pure, even this contains nitrogen. He might dress sown plots with 10 cwt. of loaf sugar per acre, or with a ton of rectified whisky!! but there are some obvious objections to such a course.

We freely admit that under ordinary circumstances, to speak of rape cake as a carbonaceous manure, or to attribute its whole effect on crops to the carbon, oxygen and hydrogen it contains, would be erroneous. None know this better than Mr. Lawes and Dr. Gilbert, and were not our correspondent ignorant of these gentlemen's writings, he would have escaped the error of supposing otherwise. Mr. Lawes speaks of rape cake as a carbonaceous manure under the following circumstances. He dressed one plot of land with sulphate and muriate of ammonia. another with superphosphate of lime, another with potash, another with soda, another with magnesia, another with sulphate of lime, silicate of potash, magnesian limestone, &c. &c.; some, with all of these, and others with two or more in various combinations; others with all the mineral elements of plants, with and without ammonia. These manures *contain no carbon.* Rape-cake contains a large quantity of carbon. Here are plots dressed with the elements found in rape-cake, except its carbonates, and, by the side of them plots dressed with rape-cake itself. These plots manured with rape-cake, in the turnip experiments, gave a larger crop than the plots which received the other manures, and Mr. Lawes attributes the increase to the carbon of the rape-cake. Is he in error here? To what else can he attribute it? Under such circumstances, is it a "blunder" to speak of rape-cake as a carbonaceous manure when comparing it with sulphate and muriate of ammonia and other manures which contain no carbon?

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Milk Clean.—In some careful experiments made by Dr Anderson, the quantity of cream obtained from the first drawn cup of milk was in every case much smaller than the last drawn; and those between afforded less or more as they were nearer the beginning or the end. The quantity of the cream obtained from the last drawn cup from some cows, exceeded that from the first in the proportion of sixteen to one. In others the proportion was not so great. "Probably," says Dr. Anderson, "on an average of a great many cows, it might be found to run *as ten or twelve to one.*" The difference in the quality of the cream was also much greater than the difference in quantity. From this it appears, that the person who by bad milking of his cows, loses but half a pint of his milk, loses in fact about as much cream as would be afforded by six or eight pints at the beginning, and loses, besides, that "*part of the cream which alone can give richness and high flavor to his butter.*"

Manure:—Demand and Supply—Fish as a Fertilizer.

The demand for artificial and concentrated manures has been steadily on the increase for many years past, both in Great Britain and in this country. In Great Britain the demand so far exceeds the supply that prices have in several cases, advanced considerably, or up to the extreme limits at which the use of the fertilizing articles could be made remunerative.

This fact of the steadily increasing demand for concentrated or commercial fertilizers, renders it highly probable that the demand will go on increasing, and that, if the supply can only be kept good, there may be twenty, thirty, fifty or even a hundred fold as many acres treated therewith, in a few years hence as there is now. The probability of such an increased demand, makes the subject of sources of supply one of no small importance. For obviously, if the greater part of the commercial fertilizers are now to be had only at such prices as to make their use little more than barely remunerative, then the employment of them cannot be extended without the discovery of some fresh sources of supply. The subject of new sources of supply is also important inasmuch as a reduction in price is the usual consequence when the supply is greater than the demand. Were fertilizing materials to be had in greater abundance, and consequently at lower rates, many farms which are now undergoing a process of deterioration from the large amount of grain, milk, cheese, butter and animals carried off to city markets without any suitable returns, might have this deteriorating process put a stop to by a resort to such fertilizers as a more abundant supply had rendered cheaper and more accessible. Many farms are being exhausted, much to the grief and mortification of their owners, just because fertilizers cannot be had at prices which would justify their use, to restore or increase the waning fertility of the fields.

One of the greatest *wants* of the agricultural public is, therefore, such an increased supply of manurial substances as would permit of their being had at prices which would make it certain that the use of them would pay and pay well.'

This want is beginning to be felt on both sides of the Atlantic. Prof. Way, consulting chemist to the R. A. S. of England, has lately directed the attention of the Society and of the public to the subject of the use of Fish as a Manure. Fish being an abundant source of supply, both of nitrogenous and phosphatic fertilizing materials, and this source being almost unlimited, we cannot but hope that all the obstacles which may at present stand in the way of obtaining manure from this source in sufficient abundance, and at a moderate price, will soon give way before the enterprise, industry and scientific skill of man.

Fish and fish refuse, in their natural state, have long been used as a manure, and they have been so highly valued as to be moved by wagon even as far as 25 miles inland from the sea coast. The use of fish, however, in its natural state, must necessarily be confined to a comparatively short distance from the place where it is caught. It seems unquestionable that putting fish refuse, and even fish unfit for food, into a concentrated and commercial form, would abundantly reward the enterprise of any who should successfully accomplish this problem. It has already, to some extent, been accomplished in France, where an article is produced from the refuse of the sardine fisheries, which has been pronounced equal to the best Peruvian Guano.

According to Prof. Way, a great part of the fertilizing property of fish is owing to the nitrogenous elements contained in the meat. This is of similar composition to flesh, dried blood, woolen rags, &c., of which the value as manure is generally well known. Another source of the fertilizing power of fish lies in the oil. Mackerel are peculiarly rich in this ingredient, some having been found to contain over 24 per cent. of oil, or about one-fourth of their entire weight But though none have been found to yield so large a proportion as this, most fishes contain more oil than woolen rags or rape-cake, which are powerful manures, and which owe part of their power to the oil contained in them. The other main ingredient in fish is the ash or mineral matter. The lobster and mackerel have been found to contain about 5 per cent. of phosphate of lime in the dried state.

Whatever may be the value or the fate of these hints, we think every attempt to increase the supply of manures should meet with encouragement. Without this it seems certain that while the price of all presently used fertilizers will *go up*, the fertility of all fields fully cropped, will as certainly *go down*. OBSERVER.

Artificial Manures for Oats.

The *Southern Farmer* of the 8th inst. contains the Report of the Superintendent of the Model Farm of the Virginian and North Carolina Union Ag. Society, from which we extract the following results of some experiments on oats with various manures.

200 lbs. Peruvian guano gave 2240 lbs. of oats per acre, say 70 bushels.

250 lbs. of Do Burg's Superphosphate of lime gave 1712 lbs., say 53½ bushels.

277 lbs. bonedust gave 1676 lbs, say 52¼ bushels.

An acre without any manure gave 1140 lbs., say 35½ bushels.

On another portion of the field, which contained 30 acres, where the soil was of "a slightly lighter texture," 100 lbs. of Peruvian guano gave 1672 lbs. per acre, say 52 bushels.

183 lbs. of Chilian guano gave 800 lbs. say 25 bushels.

100 lbs. of Mexican guano gave 1225 lbs., say 38½ bushels.

There are other experiments given, but they are not strictly comparative. We have no doubt the experiments were made with great care, and are entitled to confidence. The "Chilian guano" was used under the impression that it was the genuine article, but it turned out to be that manufactured by Mr. MAPES, out of Mexican guano, sugar scum, plaster, salt, &c Our reades can judge of its value from the above experiments.

Native Grapes—Inquiries.

Will you please inform me on what authority it was stated in the Co. Gentleman for Nov. 30, 1854, that the grape found in Long's Expedition, proved worthless? In answer to a communication of mine in the N. E. Farmer, Mr. R. Carr of Philadelphia, stated in the same paper, that he had vines growing from the seed brought by the officers of the expedition, but they had not then produced fruit

Has the Summer Grape of the southern and middle states (*Vitis estivalis* of Bot) been cultivated, and with what success?

Is there not an undescribed species or variety of grapes, growing in the western and southern states, (called in Flint's History and Geography of the S. and W. States, the "Pine Woods' Grape,") of considerable excellence, and may there not be various kinds of different degrees of excellence, as it seems pretty certain that grapes similar to or identical with the Catawba are reported to have been found in various places?

I am strongly inclined to believe, with Mr. W. R. Prince, (judging from the character, foliage, &c.) that the Bland is a native, of a different species or variety from the common Bullet Grape, (*Vitis labrusca*)

I have a wild grape, procured in this vicinity, in size between the common Bullet and Frost grapes, which is of considerable excellence, probably somewhat like the Clinton, and they are not very uncommon on high lands, of various qualities; and I have found, on examination of the wild grapes of the low grounds, a great variety of qualities, and many of them are cultivated in this region

Are we not too prone, in the search after novelties, and the value set on the "dear-bought and far-brought," to under value and neglect the fruits of our own region, and are not the books on Pomology often so far removed from the practical, that they recommend fruits of much less excellence, than many that have not been "introduced to notice," as it is termed? Cole says that hundreds and even thousands of apples may be found in Maine, superior to many that are recommended in Fruit books.

Do not the leaders in fruit-growing, generally attach too much importance to flavor, in comparison with other qualities that render fruits saleable, and which would render their production more easy and common? Sheldon Moore. *Kensington, Ct., July* 25.

The above inquiries have been unintentionally delayed, the communication having been mislaid. We are able to answer but part of them.

We received our information relative to the Rocky-mountain grape, from a gentleman of much general intelligence residing near Philadelphia, and who had tasted it—and not from personal knowledge. The Bland grape does not appear to be very nearly allied to the *Vitis labrusca.* Speaking of the former, Nuttall remarked in 1818, "There is a variety of one of the native species, cultivated under the name of *Bland's Grape* (an hybrid?) no way, in my opinion, inferior to some of the best European grapes." This variety does not ripen well north of about 40°, except with unusual exposure. On the banks of Cayuga lake, where it had a *double sun,* (one by reflection from the water) it has often succeeded well. The same remark will apply in less degree to the Catawba. Last summer, so unusually dry and warm, ripened the Catawba near Cayuga lake so perfectly, that some specimens exhibited great excellence, and were pronounced by a distinguished fruit raiser, as the best grapes he ever tasted.

There may be wild native sorts well worthy of cultivation and trial; but our own observations and experience only confirm the obvious fact, that travellers and explorers, who are hungry for fruit, and who mostly get nothing but the sourest and most austere specimens, are very poor judges for the time being, appetite often imparting a very fine flavor to what would otherwise be absolutely detestable. The only reliable test is cultivation and tasting side by side with our most delicious sorts.

Pomologists and "leaders in fruit-growing," who justly deserve their name and position, are those who try thoroughly and compare carefully every thing promising to be valuable to be found, and consequently are able to decide with a full understanding of their subject. We do not see how such knowledge and experience can lead them astray. Fruits which are recorded as most valuable in "Books on Pomology," are not simply those which the writer happens to approve, but which have received a general vote by the fruit raising community. There are thousands of *tolerably* good undescribed sorts of the apple all through the country, which are *almost* worthy of cultivation, and these are no doubt such as Cole alluded to.

Portable Steam Engines.

Zanesville, Ohio, Sept. 12th, 1855.

Mr. Luther Tucker - The Sept. No. of the Cultivator did not reach me until to-day. The communication of Mr. E. Poor, Coburg, C. W., has elicited a note from Mr. Gurdon Evans, Eaton, N. Y., accompanied by a cut of a portable steam engine, made by Messrs. A. M. Wood & Co. of Eaton. These different correspondents deserve the thanks of your numerous subscribers, as steam is no doubt destined to do a vast amount of work now performed by horses, on farms, &c. The engine figured is a very compact, neat and creditable article to the manufacturers.

For the benefit of your subscribers who reside in states west of New-York, permit me to say that Messrs. H. & F. Blandy of this city, manufacture and offer for sale portable engines, from 3 to 12 horse power. Their construction of course differs from the engine of Messrs. Woods, but are equally efficient and economical, and so far as I can judge, still less complex. The smallest is 3 horse power, with three flues, price $250, ready for the band. The 12 horse engine has the same compact form, all the working parts being attached to the boiler, which contains 45 flues 2 inch. and has power enough to drive a 72 inch circular saw, for which purpose it is more especially adapted, though it can be applied to any purpose. The price of this is $850.

They have in preparation cuts representing their arrangement of working parts, one of which they request me to say, will be forwarded for insertion in your advertising department, as soon as completed.

Any of your readers desiring further information, will doubtless get it promptly by addressing them.

All the manufacturers of portable engines are public benefactors, and deserve the thanks of those who will find it to their interest to use these useful machines, which, in themselves, resemble Mr. Barnum's elephant in morality and power. F. C. McElroy.

Fruit Growers' Society of Western New-York.

The first annual exhibition of this Society was held at Buffalo on the 13th and 14th of the present month. Members were in attendance from a considerable number of the twenty-three counties embraced within its limits, and a rich and select collection of fruits, many of them new and rare, were exhibited on the tables. Several competent persons gave it as their opinion that for extent and variety, this exhibition has never before been equalled in the state. Among them we observed 90 varieties of pears from Manley & Mason; and about 60 from Lewis Eaton, both of Buffalo; 160 varieties pears, 80 of apples and 27 of plums, from Ellwanger & Barry; 40 of pears from Frost & Co; 47 of apples and 27 of pears from Hooker, Farley & Co; 74 of pears and 30 of apples, from H. E. Hooker & Co., all of Rochester; 80 varieties of pears from W. P. Townsend of Lockport; 33 from H. P. Norton of Brookport; 68 from Penfield & Burrell of Lockport; besides other collections of apples, pears, plums, and grapes, from many contributors, among which we observed those of L. F. Allen of Black Rock, Austin Pinney of Clarkson, Loomis & Whitman, of Byron, W. R. Coppock of Buffalo, R. P. Warren, of Alabama, (N. Y.,) and A. Huidekoper of Meadville, Pa. There was also one or more collections from Canada. In giving the numbers merely of each collection, we do not do justice to their merits, as nearly all were distinguished for the new and rare sorts which they largely contained.

The following very imperfect report of some of the facts stated during the discussions, may be acceptable to our readers.

FIRE BLIGHT IN THE PEAR.

L. F. Allen stated that he had read a wheelbarrow load of books on the subject, and had learned nothing. The disease had affected a dozen trees in his orchard, all on one circumscribed spot of ground, of only one eighth of an acre, and he ascribed it to electrical influence in the atmosphere.

J. J. Thomas remarked that without attempting to assign a cause, he had in nearly every case succeeded in arresting it by promptly cutting off all affected parts, at some distance below any appearance of disease. In some instances it was necessary to repeat this till large portions of the tree were cut away, but this was better than to lose all, or to leave unsightly dead branches remaining.

W. P. Townsend of Lockport, stated that he had a row of trees consisting of Belle Lucrative and Glout Morceau, and the blight attacked the trees of the latter and left the former, thus skipping over the Belle Lucrative, and attacking the Glout Morceau. Other rows had lost two thirds of Passe Colmar, while Beurre Diel and Oswego Beurre had escaped. A few only of the Louise Bonne of Jersey had been affected. He has observed that such weather as produces rust in wheat, causes blight in the pear, namely a damp, close, hot air. He had not observed any indication of its contagious character.

W. R. Coppock had observed in his own orchard that the Glout Morceau had escaped, while Bartlett, Vicar of Winkfield and other sorts had been badly affected. He did not regard it as contagious.

J. B. Eaton stated that he had observed no pear more affected than Glout Morceau, with the exception of Colmar d'Aremberg; and he had found a decided advantage in amputating the affected limbs, the disease evidently extending downwards.

H. E. Hooker, of Rochester, had seen strong proof of its contagious character, in attacking young trees in the nursery rows, by its extending from one tree to another, and thus sweeping clean through the whole row. Glout Morceau and Vicar of Winkfield were particularly affected, and he had found much advantage in cutting away the affected parts, *immediately*, and at some distance below the affected part.

P. Barry of Rochester, had not the present year, out of an orchard of 4 or 5000 specimen trees of different sorts, lost a single tree of the Winkfield, while one or two Belle Lucrative, and four or five of Glout Morceau had been injured. He stated as a proof of its mysterious character, that some years ago it had never appeared at Lockport, and that place had been pointed out as an excellent locality for planting a pear orchard, yet since then some skillful cultivators had become quite discouraged by the extent and virulence of the disease there.

At a subsequent portion of the session, several members, in compliance with the request of the society, handed in lists of those varieties with which they had had experience, placing those first that are most liable to blight, and such last as are least so, so far as their observations have extended. The following lists were presented, exhibiting a considerable degree of uniformity in the sorts most affected, although some of the members questioned whether one variety was more liable than others.

By H. E. Hooker, Rochester. Madeleine, Passe Colmar, Summer Bell, Glout Morceau, Swan's Orange, Vicar of Winkfield. Bartlett, Stevens' Genesee, Belle Lucrative, Louise Bonne of Jersey, Beurre Diel, Easter Beurré, Winter Nelis, Sheldon, White Doyenné, Seckel

By C. L. Hoag, Lockport. Bartlett, Stevens' Genesee, Madeleine, Julienne, Dix, Dunmore, Seckel, Virgalieu.

By Ellwanger & Barry, Rochester. In the nursery row, Glout Morceau and Vicar of Winkfield, blight the worst.

By C. H. Hooker, Rochester. Glout Morceau, Passe Colmar, Swan's Orange, Madeleine.

By A. Pinney, Clarkson. Onondaga, Madeleine, Glout Morceau, Stevens' Genesee.

By J. B. Eaton, Buffalo. Colmar d'Aremberg, Glout Morceau, Passe Colmar, Seckel, Stevens' Genesee, Bartlett, Duchesse d'Angouleme.

By J. J. Thomas, Macedon. Madeleine, Passe Colmar, Bartlett, Stevens' Genesee, Vicar of Winkfield, Glout Morceau. The preceding nearly equally liable, but the first most so. Least subject to blight, Seckel.

By A. Loomis, Byron. Van Mons' Leon le Clerc, Vicar of Winkfield, Madeleine, Bartlett.

By T. C. Maxwell. Glout Morceau, Le Cure, (Winkfield,) in the nursery row. Madeleine in the orchard.

CULTIVATION OF NURSERY TREES AFTER TRANSPLANTING.

P. Barry, general chairman of the Fruit Committees in the several counties, stated it as his opinion, derived from the returns made him, that there are *four thousand* acres of nursery embraced within the 23 counties covered by the Society. At 10,000 trees per acre, this would give 40 million trees; one fourth of which yearly, would be 10 million trees annually set out. An interesting inquiry immediately arises, What portion of these 10 millions reach successful bearing? This excited a very interesting discussion on cultivation, and many valuable facts were stated, showing the importance of good after culture to transplanted trees. P. Barry stated that a large portion of the finest varieties were set out in villages and by those who usually devoted the most care to their trees, yet even among these there were but few who gave them sufficient attention, and who did not lose many by neglect. Others confirmed this opinion, and it was generally admitted that but a small portion of the trees purchased and set out ever reached a thrifty bearing condition, in consequence of neglected cultivation.

HOUSE-RIPENING PEARS.

Facts were stated by several members corroborating the general opinion among intelligent cultivators, on the importance of ripening most varieties of the pear after gathering. **Austin Pinney** of Clarkson, exhibited a dish of finely ripened Bartlett pears, all of them remarkable for a very brilliant red cheek. He remarked that when gathered, the red color of those specimens was scarcely perceptible, and that it was mainly owing to maturing them in the dark. This was confirmed by others who had observed similar results. **P. Barry** has found the Bartlett, even when gathered before fully grown, to ripen well in the dark, and to acquire a flavor fully equal to that attained by specimen sgathered later He had found shallow boxes, containing not more than three layers of the fruit very convenient for this purpose. The temperature should be 56° to 60°, for securing the best quality—if warmer, they would mature sooner, but at the expense of flavor He regarded this subject as one of great importance, inasmuch as the flavor of *winter* pears depends still more upon the ripening process—he had seen single specimens of the Vicar of Winkfield, of very poor quality, sell in January in New-York city for 25 cents each; and a great market was yet to be opened for winter pears of the best quality. **H. E. Hooker** had found that caution was needed, that the fruit does not receive a taint from the wood of the box or drawer, in such close confinement, and that open shelves would be better without this care.

THE CURCULIO.

Several members had succeeded in raising good crops by pursuing the practice of confining swine and poultry under the trees—some by the confinement of poultry alone—care being taken that the animals were sufficiently numerous to pick up all the fallen fruit. **P. Barry** stated that he had fully succeeded by employing a man to pass frequently under the trees, and sweep up from the smooth cultivated ground under the trees, all the fallen fruit. This is only a modification of the remedy by enclosing animals. In answer to an inquiry relative to the locomotive habits of these animals, it was stated that they had frequently been seen flying horizontally from one tree to another, and starting on the wing from the white sheets on which they have been jarred, in warm weather; and **H. E. Hooker** of Rochester and **J. J. Thomas** of Macedon, both remarked that they had planted stone fruit a fourth of a mile or more from any other fruit trees, and the first season of bearing all had been destroyed. Nevertheless it was the opinion of all that they usually confined their attacks to the tree where the eggs have been previously laid, as the efficiency of the swine and poultry remedy, sufficiently proves.

The society agreed to hold its annual meeting next winter at Rochester.

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Sale of Hereford Cattle.—At a sale of stock belonging to Mr. Dowley of Brattleborough, Vt., on the 5th inst. the Herefords brought the following prices: Imported bull "Cronkhill," $400, purchased by David Goodale of Brattleborough—imported cow "Mole," to same gentleman, $155—a yearling bull, to Mr. Burroughs, Vernon, Vt., $137.50—Hon. John Brooks, of Princeton, Mass., was the purchaser of the imported Hereford cow "Milton" and her heifer calf "Cora," at $160 and $130 each. Col. Lee, of Templeton, Mass., obtained the Hereford bull calf "Hero," at $180. A half blood Hereford heifer, seventeen months old, brought $120, and a half-blood bull calf and a half-blood heifer calf, $45 each.

Wintering Sweet Potatoes.

In one of your papers the last season I noticed instructions to *keep sweet potatoes*, and though your correspondent writes from Alabama, I think he omits one very important item, and one we here in this more southern region deem *indispensable*—that is, to *ventilate* them.

We here dig the *first day after a frost*, to prevent the effect of the frost on the vines descending to the roots, which effects the taste of the potatoes and causes them to rot the next day, or even on the same day; they are thrown into heaps, and covered up for the season—selecting a dry spot, where the water will run off when it rains, and generally digging a small trench around to insure it The first thing then to be done, is to place a pipe or chimney, made square, say from 6 to 8 inches, in the centre of the heap, with auger holes bored through the sides from the bottom to the top. Around this pipe, heap your pile; when completed to the height of the pipe, or within a few inches place a few vines, some straw or hay, on the potatoes —then lay on boards, and then throw in the dirt sufficient to protect them, leaving the top open to give vent to the moisture that evaporates from the heap—the sweating they necessarily go through. A shelter sufficient to protect the heaps from the rains, should always be placed over them. In this way, I have for twenty years always kept sweet Potatoes, and never lose them; nor do my neighbors ever lose them, if they have been dug before the frosts have injured them. The best and most productive variety to cultivate here in this region, 33° 20, we find to be the *large Red Spanish*. A H. **Davies**. *Columbia, Ark.*

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Cleaning and Planting Apple Seed.

Messrs. Editors—If you will inform me through the Co Gent. how to free apple seed from the pomace you will confer a favor.

Please state the proper method of applying guano to seed-bed and nursery ground, and how rich the soil will need to be, to obtain the *greatest* growth in each case. The soil is a strong clayey loam, with considerable sand and muck. It is naturally quite wet. J. L.

Mix the pomace with water and stir it, and the seed will fall to the bottom—rack off the pomace and water, and repeat the operation till clean seeds are left. The best way is to have two large boxes, one within the other, the inner one with a sieve nailed on the bottom, coarse enough to let the seeds drop through, and standing above the bottom of the other on blocks. Put the pomace into the inner box, and pour water into the outer; the water finds its way among the pomace, which being stirred, allows the seed to drop through into the clear water below. By this means, seed can be cleaned much faster than by the first mentioned process.

Guano is best applied by first making it into a compost with many times its bulk of loam, turf, peat, &c, or either of them—and then applying like any other manure—making the soil *deep*, and it must have a dry subsoil. Apple seedlings, to grow vigorously, should have a soil as rich as the *richest garden soil*, such as we use for the most luxuriantly growing vegetables.

The Ohio State Fair.

The most ardent friends of the agriculture of Ohio could hardly have been disappointed in the Exhibition at Columbus last week. The people of that commonwealth are just beginning to become generally aware of the existence and objects of the State Society, and this year's list of entries is accordingly somewhat larger than that of any former show. The weather unfortunately prevented a corresponding increase in receipts and attendance. Tuesday afternoon and evening, it rained almost incessantly; Wednesday the skies were heavy, and Thursday, until noon, a misty drizzle was constantly falling. At the present writing, Friday morning, the same continual dropping goes on.

The grounds were situated on the farm of Mr. Sullivant about a mile west of the city. The enclosure was lined by stalls and pens throughout nearly its whole circumference. The track for trying horses would have been very good had not the rain made it somewhat heavy. The show of Stock was very fine—that of horses being both large and excellent; that of cattle including some of the best short-horns of the Ohio importations, some good Devons, and a few Herefords; the sheep, though hardly what might have been expected from a state so largely devoted to wool-growing, still creditable even to Ohio, and the Swine excellent in quality and fair in numbers. Fruits were exceedingly fine, the mechanics of the state were well represented, implements were shown in unusual numbers and variety, as we were told, for Ohio, and there was no department, perhaps, wanting in something to render it attractive. We noticed in attendance many of the stock and fruit men of the state, and several from beyond its borders.

If we take the Fruit and Floral tents first in our course, we shall very likely notice Drs. Warder of Cincinnati and Kennicott of Illinois, in animated consultation, Messrs. Ernst, Elliot and Ellwanger looking about for subjects of discussion at the evening meetings, or the two latter superintending their own large collections; and several other noted pomologists examining the long and well laden tables. We now admire the luscious appearance and select varieties of the Apples and Peaches shown by Charles Carpenter, Esq., of Kellog's Island—which is, by all accounts, the very Paradise of Fruit growers; or perhaps taste Mr. Thompson's new "Delaware" grape, which is said to be a variety of considerable premise; or here make a note of the beautiful samples of 88 different varieties of Apples and 45 of Pears from the orchards of Mr. T V. Peticolas of Mt. Carmel; or there wonder at Mr. Elliott's 147 kinds of Pears and 96 of Apples only outdone by the 160 sorts of the former and 104 of the latter, exhibited by the omnipresent firm of Ellwanger & Barry. Mr. Wood's show of fruit from Belmont co., and Mr. F. G. Carey's excellent Apples and Quinces did not escape us among other fine lots.

Of Vegetables the show is large and good—we are glad to see them not passed by among other more showy, but not more important matters. We have not room for details of these, nor of Bouquets and Greenhouse plants, which latter however would not be very long. An appropriate and well executed center-piece in Floral Hall, combined specimens of nearly every kind of grain and esculent grown, giving very properly the greatest predominance to Indian Corn, and was designed by M. J. Kern of Cincinnati. There was some cheese from only two or three dairies, a few samples of Flour, and here and there specimens of various other farm and household products.

We may say, in passing, that the show of Poultry was large enough to attract many who wanted an introduction to the famous Shanghai aristocracy with its branches; that the buildings devoted to the fine arts, textile fabrics, embroideries, &c., were well filled with exhibitors, and constantly crowded with examiners, but we were too much occupied to do more than glance at these.

We come now to the Stock Department, to which far more time than was at our disposal, could have been most advantageously devoted.

Class A, representing Cattle, contained the *Durhams* in the largest numbers Among the chief exhibitors of these were Harness Rennick, Esq., of Darbyville, who had seventeen head including "Thornberry," a fine 3 year old, a beautiful lot of young stock of his get, and one of the best heifers on the grounds, 18 months old, not from him—G. W. Greggs, Esq., of Circleville, who showed eleven head—C. Pontius, of Groveport, with seven—W. A. & R G Dunn from Madison Co. with the same number, and a very large well made Bull, "Colonel," belonging to J. G, W. A. & R. G. Dunn—Jacob Pierce from South Charleston, Clark Co. with an excellent lot numbering eleven, and including the imported Bull "Alderman," 6 years old, and the cow "Roman 13th," 7 years—both, as well as his young stock, animals of merit—C. M. Clark & Co. with two good specimens from the Clark Co importation—the Bull "Lord Eglinton," imported and exhibited by Wilson & Searight—S A. Bushnell of Hartford with a fair lot—"Cassius" belonging to S. Pyle from Clinton Co. and three head from the same district shown by H. H. Hawkins. Among other exhibitors were F. W. Renniek, P. W. Taylor of Franklin Co., E. Urton of Sligo, D. W. McMillan of Oak Hill, R. G. Corwin of Warren Co. and Ethan Alling of Twinsburgh. The numbers of Short horns were so large that we shall not attempt to criticize them individually. They are all larger, heavier, not so fine, and hardly as compact as our New York importations of this breed.

The *Devons*, numbered 30 head. Among them we particularly noticed a yearling bull of great promise, owned by Joseph Hawkins of Summit Co. The first premium cow both last year and this, belonging to E. Matchem from Loraine Co.—the imported "Duke of Devon," 6 years old, of Mr. C. A. Ely of Elyria, who also exhibited "Governor," a superior bull calf 4½ months old, and other good young stock—"Prince Albert 2nd" belonging to Daniel G. Barker of Huron Co., which took the first prize in his class, and a good heifer calf and yearlings shown by the same gentleman—and the bulls of Messrs. M. Walters and N. W. Smith. The only *Herefords* exhibited, unless we are mistaken, were those of Messrs. Thos. Aston of Elyria and John Humphreys, of ——. Mr. A.'s imported 4 year old bull took the 1st premium and was a very fair specimen. There were no *Ayrshires* on the grounds.

We missed the trial of *working oxen*, if any took place. A good pair of 4 year old Durhams were shown by T. P. Miller, of West Liberty. We had notes of others but cannot now find them.

Class B., Horses, were out in very large numbers, and manifested an unexpected degree of excellence. We found more difficulty, as usual, in obtaining the requisite information in regard to them, than on any other head. Old "Monarch," now in his twenty-second year, was exhibited by Isaac Light of Fairfield Co., who recently purchased him of L. G. Morris, Esq. of our State. "Gray Eagle," another fast horse of times that are past, and now, we think twenty years old, was shown by Mr. Pine of Kentucky. C. B. Shepherd of Butter Co. showed "Cadmus," the sire we were told of "Pocahontas," the great pacing mare, and himself a fine horse. The Washington Co. stock Co. exhibited the "Walker Cadmus," but we did not see anything more of him than the outside of his stall door. The Butler Co. company showed two horses, "Victor" and "Grey Hilander," of great beauty, and especially the latter, of great size, weight, compactness and strength. It was difficult to say which to prefer. The former was rather more to our taste though several gave the latter their choice. Quite a number of Morgan horses were on hand; among them Blake and Williams of Franklin Co, with "Green Mountain Morgan," a beautiful and able animal. We have the names of various others—both horses and their exhibitors, of less note, but will not give them, as an incomplete list could convey no just idea of the numbers present. They seemed to form the most attractive part of the show.

We come next to the *Jacks* and *Mules*, of which there was a good representation. M L. Sullivant, Esq., Columbus, exhibited three 2 years Jacks of more than ordinary merit, and a fine jennet—W. M. H. Polk, of Sabina, a yearling Jack which took the first prize, a good jennet 5 years old, and a well matched and showy pair of young mules of 15 months. Among other exhibitors were Messrs. M. E. Pierce of South Charleston with a beautiful pair of mules and several single,—H S. Manon of Licking Co with a 2 year old Jack,—S. S. Hunter, Columbus, with 3 head of mules,—S. A. Bushnell of Hartford with a couple of good young jennets, and L. Cleggett of Green Co., with a 3 year old Jack.

Class C. was the department of SHEEP. Here we found our friend W. H. LADD of Richmond, with his Silesian Merinos, 11 Ewes and 3 Bucks. Among others having the same breed, were Mr. Daniel Kimball of Rutland, Vt., who also exhibited a number of very fine French and Spanish, and Karr and Star of Carey, with a good Silesian Buck, and some Saxons H S. Manon of Hebron, showed 2 "Atwood" Spanish Merino Bucks, one a five, the other a three year old, two pens Ewes, of the same breed out of Wells and Dickinson's Merino ewes and a pen of Saxons—Bachelor and Howe, of Coshocton, pen each of Bucks and Ewes of the "Atwood" stock—T. S. and J. Humerickhouse, two 2 year old Bucks of the same and a lot of yearlings—J. Stoolfire, Hebron, three pens of Spanish—A. L. Bingham, of Cornwall, Vt., Joseph Mosher of Mt. Gilead, several pens of French. Among others were Pollock and Barrick of Licking Co. and Jno. M. Fadden of Harrison Co., with Saxons. The principal exhibitors of *South Downs* were S. A. Bushnell, and S. Towns of Ridgeville. John Chamberlain of Avon, M. L. Sullivant of Columbus and R. W. Taylor of Hibernia, were among the owners of Long Wooled sheep present. A few fat sheep were shown, but we saw none of extraordinary merit.

Of SWINE, Class D, the Suffolks took the palm. P. Melendy of Mt. Healthy had five pens of these—a fine Boar, a Sow with FOUR pigs, and another excellent Boar of two years. W. B. Goodrich of Westfield, had a fine Sow, "Lizzie," from Wm. Stickney's stock with 12 out of her last litter of 14 pigs—as pretty a sight as we have seen in some time. We understood that she was two years old, and had had 32 pigs within 12 months preceding last June. B. Bassett of Milan, showed a 20 months Boar, who winked at us as we passed with the most intelligent look we have seen in a pig's eye, and 5 fine fat shoats of 3 months. Among others, L. W. Oldham, of Fayette Co. exhibited a boar; but a "Liverpool" Sow, perhaps the very best on the ground, and which attracted a great deal of attention, we are sorry to have lost a minute of the owner's name, and have no means of ascertaining it as we write. She was certainly a beauty.

This finishes the Stock show; which must have been exceedingly gratifying to all concerned, and with that of fruits, formed decidedly the features of the occasion. We will attend to only one or two of the machines and implements before we close.

Among exhibitors from our State, were Messrs. R H. Pease, and Emery Brothers of Albany, and Cowing & Co.. of Seneca Falls. Among exhibitors of Plows were J. L. Gill of Columbus and G. C. Miller & Co. of Cincinnatti. Mills for grinding Corn and Cob, Planters and Drills of every description, straw and stalk cutters "of sorts," especially abounded. Hall, Brown & Co., of Columbus, had a good assortment of Scythes, Axe Handles, &c., &c.

Dickinson & White of Richmond, Ind., showed a new Patent Adjusting Wind Mill, that drew considerable attention and seemed to promise well We may give cuts and descriptions at an early day. A new Stump Puller from Pennsylvania was simple and effective, and worthy of notice. Boyer and Sawyer showed a new Building Material, or artificial Stone, which certainly looked well, patented by Ambrose Foster.

In the Power Hall, there were several Steam Engines from the Newark Manufacturing Works, Newark, O., which seemed excellently adapted to Farm purposes. There was an Automaton Grain Weigher, in which the Grain descending from above, registered its own weight, and which could be set to stop after any required amount had passed through. It was really a curiosity, was said to require no attendance at all, and to have given satisfaction where brought into use. "Stoddard's Rifting and Shaving Machine" did its work well, and attracted much attention.

Here must end our notes of the Sixth Annual Fair of the Ohio State Society. The attentions of the officers and other gentleman put us under many obligations, and the hospitalities of Columbus, we shall not soon forget. Had it not been for the unfortunate weather, we think we may safely say, that the success of the exhibition would have been unprecedented.

A Valuable Paint.

MESSRS. EDITORS — For the information of Mr. PHILIP of Greene Co., and all others who are wishing to obtain a cheap and valuable paint for buildings, I would say take common clay, (the same that our common bricks are made of,) dry, pulverize, and run it through a sieve, and mix with linseed oil. You then have a first rate fire-proof paint, of a delicate drab color. Put it on as thick as practicable.

If any one has doubts with regard to the above, just try it on a small scale—paint a shingle for instance and let it dry. Recollect that it must be mixed thicker than common paints.

The clay, when first dug, will be wet or damp, but will soon dry, spread in the air under a shelter, or, if wanted immediately, it may be dried in a kettle over a fire. When dry it will be in lumps, &c., and can be pulverized by placing an iron kettle a few inches in the ground, containing the clay, and pounding it with the end of a billet of hard wood, 3 inches in diameter, 3 feet long, the lower end to be a little rounded, &c Then sift it. Any clay will make paint, but the colors may differ, which can easily be ascertained by trying them on a small scale as above indicated. By burning the clay slightly you will get a light red, and the greater the heat you subject it to the brighter or deeper the red. A. B.

NEW-JERSEY STATE FAIR.—The first Fair of the New Jersey Agricultural Society was held last week at Camden, and passed off very pleasantly. The show was excellent and the attendance good. We regret to understand, however, that the expenses exceeded the receipts.

Improvement of Sandy Soils.

Mr. Tucker—One of your readers in the "Far West," has lately come into possession of a farm of a sandy soil, which is said by all the neighbors to be very sterile from long continued severe cropping, scanty manuring, and the *skinning* process in all its details. Well aware that he must enrich and improve the soil before he can cultivate it with any satisfaction or any profit;—well aware that he must put something *into* the soil before he can get anything of any value *out of it*, he has been directing much of his attention, of late, to informing himself in respect to the best means of improving the sandy and sterile soil of his new farm. Having heard, read, and inwardly digested quite a considerable amount of "public opinion" on this subject, he thinks that there may be some among your wide circle of readers, who may have made the discovery that their fields of sandy soil are becoming gradually impoverished or yielding very unsatisfactory crops, to whom some of the results to which his researches and reflections have led him, or some of the methods which he proposes to adopt, may be of some interest, or may furnish some hint by which they may be assisted in restoring fertility to their fields or in saving them from further deterioration. For this reason he wishes to have a brief statement laid before your readers of the methods which he intends to adopt, in attempting to improve his fields of sandy soil, and of the principles which have led to their adoption.

At the same time he is very confident that those who have had longer to do with sandy soils, or whose attention has been directed to the subject of their management more intently or for a longer period than his own, must be in possession of many facts and much practical knowledge of which he is at present, perhaps entirely ignorant. He desires, therefore, to have the benefit of any suggestions which any of your readers who have become more thoroughly acquainted with this subject practically may see occasion, or be pleased to make through your columns. He wishes that his proposed methods of operation, and his received opinions, of which he wishes a fair statement to be made in this communication, may be canvassed and criticised with the *utmost freedom.* "More light, more light"—the last wish and the last words of a man of great eminence in the intellectual world—is what he desires for himself and his agricultural brethren, even should the brightness of that increase of light only make more manifest and more mortifying any errors or deficiencies at present existing.

Let it be remembered throughout the whole account of the proposed proceedings that, while operations having amendment of the soil in view will extend over the whole farm as far as means, labor, and manures can be made available, they are, for a year or two, to be concentrated upon a field of 7 or 8 acres, as all the labor which can be hired, and all other means at the owner's command, will be no more than sufficient to reclaim that extent of surface from sorrel and sterility, and get it into a condition to produce even medium crops.

As the soil to be operated upon appears to be entirely destitute of organic matter or vegetable mould, and as the application of barn-yard and other manures to such a soil of almost pure sand, would be almost entirely useless, there being neither clay nor carbonaceous matter to prevent their escape by volatilization or leaching, it has been reckoned of *primary* importance to make addtions of clay or muck or other such retentive material to the soil. According to this theory (is it right or wrong?) the object which is to be *first* aimed at is the addition of clay, muck, charcoal, leaf-mould, and such like matter to the sterile sand. Preparations are already begun for this purpose. By ditching and cleaning out a large marsh several hundred cords of muck will be got out before winter. This will be put into heaps and protected from rains, which, together with freezing and thawing, will, it is hoped, render the muck dry and pulverulent in the spring. Some dry muck from some old ditches has already been secured to be put into a barn cellar, to be used in absorbing the liquids of the stables, and to make into composts with stable manure, hen droppings, and whatever fertilizing material may offer itself. When the muck gets to be dry and pulverulent in the spring it will be carried out upon the field referred to in quantity sufficient to make a coating, when spread, of about 2 inches in thickness. When the whole field shall have got such a coating of muck, the compost referred to and all the barn-yard manure which can be spared will be drawn out and spread as near to the time of plowing as possible. It is hoped that the addition of so much dry muck to the soil, together with that in the compost, will serve to prevent the loss of manure by leaching and volatilization, and to render it retentive of whatever ammonia may reach it in manures, rains, and otherwise.

To render the soil still more retentive it is proposed to purchase a large pit of charcoal, and to apply it, after getting it coarsely powdered, between plowing and harrowing. If plaster can be had at a moderate price (it has been $8.00 a ton for a year or two,) it is proposed to put on about one bushel to each acre along with about twenty bushels of charcoal, which last can be had at five cents a bushel, and will not cost over ten cents after being reduced to coarse powder.

Such is an outline of the means intended to be used to render the soil more retentive of whatever fertilizing matter may hereafter be applied to it. It is proposed to get out new supplies of muck every year to be used when dry and thoroughly pulverulent, in absorbing liquids about stables and yards, in converting night-soil into poudrette, in making domestic guano, in absorbing slops on washing days, and in composting generally. What is not thus used will be carried out upon the field where the operations commenced, or upon some other field as sterile and as sandy. By the addition of organic matter in this and other forms, from year to year, what is now a light-colored and almost pure sand will, it is hoped, be converted into a dark colored and compact, as well as rich, sandy *loam.*

Upon the field thus prepared for the reception and retention of fertilizing materials, all the barn-yard manure that can be spared will be carried out. Beginning on one side of the field a strip will be manured *fully* as far as the yard manure will go. Another strip will receive all the domestic guano, poudrette, and composted materials which have been made on the premises. Another strip will be dressed with lime, as far as a few loads, by way of experiment, will go. Another strip will receive all the ashes made on the premises, both leached and unleached. The remainder of the field will be dressed in strips, with superphosphate of lime, and Peruvian guano, if these can be obtained, in our western markets, *genuine* and UN-IMPROVED.

By this mode of dressing the field in strips, each a few rods wide, all home-made fertilizers will be used up *first;* and the crops on the several strips will go some way towards determining the materials by which the soil is likely to be the most benefited in future management.

As to what would be the best crop, for the first season, on the field thus prepared, the owner is undecided, and would like to be advised by some one who has had experience in improving sandy soils. Arator.

Exhaustion of the Soil.

There is, on an average, about one fourth of a pound of potash to every one hundred pounds of soil, and about one eighth of a pound of phosphoric acid, and one sixteenth of a pound of sulphuric acid If the potatoes and the tops are continually removed from the soil, it will soon exhaust the potash; if the wheat and straw are removed, it will soon exhaust the phosphate of lime; if corn and the stalks, it will soon exhaust the sulphuric acid Unless there is a rotation, or the material that the plant requires, supplied from abroad, your crops will soon run out, though the soil may continue rich for other plants.

An acre of soil twelve inches deep would weigh, say 1,600 tons. According to the above figures, it would contain 8000 lbs. of potash, 4000 lbs of phosphoric acid, and 2000 lbs of sulphuric acid. Estimating that potatoes contain 20 per cent. of dry matter, and that 4 per cent. of this is ash, and that half of the ash is potash, we only remove in a crop of 250 bushels, 60 lbs. of potash. Say that the tops contain 20 lbs. more, and we have potash enough in an acre of soil to produce a crop of 250 bushels of potatoes, each year for a century!

A crop of wheat of 30 bushels per acre, contains about 26 lbs of ash, and half of this say is phosphoric acid. Allowing that the straw, chaff, &c., contain 7 lbs. more, we remove from the soil in a crop of wheat of 30 bushels per acre, 20 lbs of phosphoric acid. According to the above estimate, then, an acre of soil contains sufficient phosphoric acid to produce annually a crop of wheat and straw of 30 bushels per acre *for two hundred years!*

We will pursue the calculation no farther. The writer of the paragraph quoted above, selected out the crops and elements best suited for his purpose; but it will be seen that even according to his own estimate there is sufficient potash and phosphoric acid in the soil to give the present wicked generation all the potatoes and wheat they may need.

But let us take another view of the subject. No intelligent farmer removes all the potatoes *and tops*, all the wheat, straw and chaff, and all the corn, stalks, &c., from his farm. According to Dr. Salisbury, a crop of corn of 75 bushels per acre removes from the soil 600 lbs. of mineral matter; but the grain contains only 46 lbs The remaining 554 lbs. is contained in the stalks, leaves, sheaths, husks, tassels, &c., all of which are generally retained on the farm. It follows from this that, when only the grain is sold off the farm, it takes more than 13 crops to remove as much mineral matter from the soil as is contained in the whole of one crop. Again, the ash of the grain contains less than 3 per cent of sulphuric acid, so that the 46 lbs. of ash in 75 bushels of corn contains less than a pound and a half of sulphuric acid, and, thus, if as is estimated, an acre of soil contains 2000 lbs. of sulphuric acid, we have sufficient for an annual crop of 75 bushels per acre for fifteen hundred years!

Intelligent wheat growers seldom sell their straw, or chaff, and frequently consume on the farm nearly as much bran, shorts, &c., as is sent to market with the grain. In the Natural History of New York, part V., it is stated that a crop of wheat, in Western New-York of thirty bushel per acre, including straw, chaff, &c., removes from the soil 144 lbs. of mineral matter. Genesee wheat usually yields about 80 per cent of flour This flour contains only 0.7 per cent of mineral matter, while fine middlings contain 4 per cent. Coarse middlings, 5½; shorts, 8; and bran, 8½ per cent. It follows from this that, out of the 144 lbs. of mineral matter in the crop of wheat, less than 10 lbs. is contained in the flour. The remaining 134 lbs. is found in the straw, chaff, bran, shorts, &c. Even, however, if none of the shorts is returned to the farm, the 30 bushels of grain remove from the soil only 26 lbs. of mineral matter; and it would take more than five crops to remove as much mineral matter as one crop contains. Allowing that half the ash of wheat is phosphoric acid, 30 bushels remove only 13 lbs. from the soil, and if the soil contains 4000 lbs. it will take 307 crops of 30 bushels each to exhaust it.

We commend these facts to the consideration of the writer of the paragraph we have quoted. If his estimates are correct; if the soil contains as much potash, phosphoric acid and sulphur as he states, we need have few fears of waking up some morning to find all the precious elements of crops departed from our soils for ever.

We would just observe that the idea, embodied in the latter part of the paragraph, has no foundation in fact. If a soil is *exhausted* of potash, or of phosphoric acid, it will not "continue rich for other crops." Not a plant that we commonly cultivate, can grow upon soil destitute of *any* of the mineral elements of plants.

Stone Walls, Mice, and Fruit Trees.

Henry F. French, of Exeter, N. H. furnishes the New England Farmer with an account of the disasters to orchard trees resulting from proximity to stone walls. Some trees, even six inches in diameter were completely girdled by the mice which inhabit the wall; and one row has been replanted many times, and now is not more than half complete, from this same mouse-nibbling cause.

We have for ten years and more, practiced a very easy and simple mode of prevention, which we have before mentioned to our readers, and which in thousands of applications has never in a single instance failed. It consists in nothing more than throwing up with a spade late in autumn, a small mound at the foot of each tree, about ten inches or a foot high, the earth to be in close contact with the tree. This remedy, even in grassy fields much infested with mice, has fully succeeded. When these animals, in their progress under the snow, reach the steep bank of fresh earth, their course is immediately arrested, and they always turn and travel in some other direction. One man with a spade will thus secure hundred of trees in a day, and the earth is leveled down again in the spring.

Best Time to Cut Osiers.—Will some of our experienced cultivators inform a correspondent "when is the best time to cut osiers?"

Albany County Fair.

The Third Annual Exhibition of the Albany County Agricultural Society came off last week on the Washington Parade ground in this city, and was in every respect highly successful. A gentleman from Western New-York, whom we have heard say that he did not believe "the man in the moon ever looked down upon a poorer agricultural district than that around Albany," was so surprised and delighted at the number and superiority of the articles exhibited, that he declared he had never witnessed so good a show at any County Fair before. We are free to confess that a portion of the the soil of Albany County—especially that lying between Albany and Schenectady, from which strangers principally receive their impressions—is none of the best, but we have many farmers that will compare favorably for skill and intelligence with those of any other county in the state. We once heard a well known English agricultural writer say that the poorer the soil of a district, the better the farmers, and the richer the soil the less science and skill was displayed in its management. No one who has ever visited the sterile sand plains of Norfolk, and the rich vales of Devonshire, could fail to see the truthfulness of the remark. In America, on the other hand, our richest land is generally the best cultivated. We mistake, however, if there is not a gradual change taking place in this respect,—if there is not, with the increased price of agricultural and horticultural products, the introduction of artificial manures and scientific modes of tillage, a marked improvement in the cultivation of the eastern and poorer portions of the country, which will ere long place our farmers and horticulturists at the head of their profession, not only of this country but of the world. This opinion is formed from theoretical considerations, but no one who thoughtfully considers the astonishing improvements which have been made during the last ten years, can fail to be convinced, that whether correct in theory or not, it certainly is in practice. We appeal to the last Albany County Fair for confirmation of this opinion; for notwithstanding all the hindrances with which the agriculturists of this county have had to contend, the late Fair clearly proves that we have not only some excellent farmers and gardeners, but that the general cultivation of the county is undergoing great improvement. We predict that the Albany County Agricultural Society, though young in years, will soon be second to none in the state.

The show of cattle was excellent, though not what it might have been, had all our breeders brought out their stock. E. P. PRENTICE, Esq., showed eleven head of his beautiful Ayrshires. W. M. Bullock and A. R. Oliver, Bethlehem, showed some superior Durhams, and L. Higham & J. Arkles some fair Devons. W. D. STEWART, Chatham Four Corners, Columbia Co., exhibited a very fine 3 year old Devon bull. There were some other good Durhams and Devons, but we could not ascertain their owners' names. The show of Working Cattle was quite large and good. Many of them were Durham grades of great size and beauty—but too fat for work. There were also some fine and useful Devon grades, handsome, well matched, and sprightly.

The show of Horses was large, but there were few of any great merit. As a general thing, our Fairs are deficient in good farm horses. We did not see a good plow-team on the ground. It would be well if every agricultural society in the country would double the premiums for farm horses, and if the money cannot be raised in any other way, the racing sweepstakes might be discontinued without any detriment to the morals of the community, or to the influence of agricultural societies.

In Sheep, the coarse wooled mutton breeds predominated. There was scarcely a good fine wooled sheep on the ground. John Wemple, Bethlehem, showed a fine pen of Leicester ewes; and John Loop, Bethlehem, a superior buck. J. H. Booth, Bethlehem, showed some fair Southdowns. His lambs were very good. W. Searles and J. W. Jolly, Coeymans, and D. Weaver, Watervliet, also exhibited Southdowns.

There was a good show of Swine. D. D. T. More, Watervliet, exhibited a large and beautiful Suffolk boar, and Mr. Hurst several pens of excellent Berkshires and Suffolks. There were no Yorkshire or Leicestershire, or any of the large breeds exhibited, that we saw.

The show of Poultry was very fine—Dorking, Black Spanish, Javas and Polands, English Pheasants, Bantams, and the various Asiatic varieties, were well represented. There were some good Aylesbury, Muscovy, and white Poland and common ducks, and Bremen, African, and Chinese geese. Ruffled necked pigeons and lop-eared rabbits of great beauty were shown in large numbers and attracted much attention.

A cage of ferrets belonging to Jacob Vrooman, Albany, was a novelty. In England ferrets are as common as dogs, and quite as useful in hunting rats and rabbits. Mr. V. asked $6 each for them. They sell in England for $1.

There are more agricultural implements manufactured in Albany, probably, than in any other city in the Union, and under these circumstances we ought to have had a great display, but though good, the show of implements, machines, &c., was not as large as might have been reasonably expected.

The exhibition of Fruits and Flowers was truly excellent. We have attended several Fairs this year in different parts of the country, and found the apples unusually fine at them all, but nowhere have seen such magnificent apples as those shown at our own exhibition. We have a fine soil and climate for apples, and an unlimited demand for good varieties at the best prices. No farm product pays a better and steadier profit.

E. Dorr, Jno. Wilson and others, showed a fine collection of plums, though, aside from these, considering that Albany has long been noted for its plums, the display was not large. In pears, we are making rapid improvement. Well grown specimens of all our choicest varieties were shown by a number of individuals. This is a more gratifying evidence of advancement than to see one or two exhibitors trying to show the greatest number of varieties, irrespective of good qualities. The show of hot house grapes was very large, and the specimens excellent. The Black Hamburghs were the best we have seen this season, which has been rather unfavorable for them. The Zinfindal are much better here, and at Rochester the specimens shown were very fine.

Floral Hall proved as attractive to persons of true taste as the horse races did to the rabble. It was crowded to excess. It would be well at all our Fairs, to allow more space for the exhibition of fruits and flowers. The display of flowers was very fine. Some highly colored foliaged plants of the tropics, shown by E. Sanders from the houses of Jno. F. Rathbone, were much admired. There was a fine show of cut dahlias, verbenas, asters, roses, &c. Some seedling pansies, sown late and planted out in a cool moist place by Mr. Dingwall, were very superior.

There was a large display of vegetables, especially of monstrous cabbage, California cucumbers, and squashes. One of the latter, grown from French seed received from the Patent Office, weighed, it is said, 162 lbs. There were a few heads of fair cauliflowers; some very good endive, and fine celery. There were over *fifty* exhibitors of vegetables.

Agricultural Reading.

"I don't believe it."

"And why not, my dear sir?"

"Both from my own experience, and that of my friends—from what I see of other occupations, and what I conceive to be the very nature of things."

"So strong an argument, in addition to the fact just now stated, that you really have not time, is certainly worth attention; but even experience is sometimes at fault. What kind of experience do you refer to?"

"I will give you the facts,—mark, the FACTS. I am a practical man, and I deal in nothing else. *I* know, you may be sure, that if I plant potatoes and manure the field, the rest must be left with the weather and the season,—and *I* don't need to go to any "agricultural" paper to find this out. Just so with other crops. I have here 200 acres It's pretty hard land, though in my father's time it is said to have grown. more than once, 35 bushels of wheat. I have given up trying to get wheat any longer. The fact is, what with some winter-kill and my not being able to put it in just at the right time, and Heaven knows what besides, my last wheat crop was hardly worth the harvesting."

"These facts go to show that your land has wonderfully deteriorated, and that you are sometimes an exceedingly *unlucky* man. But they do not, I take it, constitute your argument against Agricultural papers, which it seems you have never taken."

"But I have, though. And what experience I was going to relate is about my taking them. Five years ago last winter, one of my neighbors made up a club for the Albany CULTIVATOR, and just about that time an agent came along for the *New England Farmer.* I thought I would try them, and subscribed a year to each."

"With what results?"

"Why, the CULTIVATOR got along about the first of the month, and one night I looked at it a little, but was too sleepy to read it, and before I got time it disappeared some way, and so it was with both of them about as regularly as they came from the Post Office. There's no kind of use in them, I tell you. They did me no good whatever. My money was thrown away. I always regretted those two dollars, let alone the postage, you may be sure. They could have been expended on a far larger amount of kindling stuff, without sending 200 miles for it."

"And suppose you were ill, and the physician sent you medicine, and visited you, say every month, for some time, and you never took his remedies, and continued to get worse,—that would go a good way to prove that doctors were "humbugs," and their fees a shocking waste of money—wouldn't it?"

"I don't see what you are at. We were talking about farmers and papers."

"O yes, I think we were. And you spoke of judging of the latter by the experience of others. Was this experience the same as your own?"

"No, *Sir!* I meant those who wan't fools enough to be chiselled out of their I's and V's as I was. There was my father, who never saw any of your "agricultural" stuff, and who, as I told you, had some crops worth talking about when he came on to this place. That was when his axe first let sunlight have free play on the virgin soil. Latterly things did not go as well as he said they did when he was young, but they went well enough—much better than now, and I dare say he had forgotten. He lived, and I mean to live—and that pretty well, too—though the times have been plaguy hard the last year or two—and this without reading a line, except out of the old Bible."

"If his judgment had been as good in regard to the quantity as to the quality of what he read, his example would have been worthy of the widest imitation. But what have 'other occupations' to do with yours?"

"Just this. My neighbor A., the carpenter, the most successful mechanic in the village, and B., the blacksmith, who is a thriving man,—they don't need a paper, weekly or monthly, I tell you, to enable one to build a house, or the other to shoe a horse. A. does read some books on architecture, to be sure, but they are in his line, and B takes and advertises in the village paper, and subscribes, I guess, for the New-York *Tribune* also—but what do they want of papers 'devoted to carpenters,' or 'to blacksmiths?' Pray why don't somebody start *The American Bellows* for one trade, and *The Carpentering Gentleman* for the other?"

"Good! I am beginning to apprehend better and better the *justice* of your arguments Go on."

"I told you agricultural papers *was* no use, and that they naturally couldn't be. Do you suppose they can change the character of my soil, or bring me a favorable season, or rain me down manna, or money either, from the skies? Pooh! pooh! You are too sensible to believe it."

"I fancy we both understand that it is man that labors, but GOD that giveth the increase."

"Precisely, precisely. Religion as well as fact!"

"Now listen to me, my friend, as I have listened to you. There could be no stronger argument in favor of agricultural reading, than this same experience of yours, and your father's, and what you have said of other men's employments, and 'the nature of things.' Your land is, according to your own showing, running out, and has been since the old forest first yelded up its untaxed powers to the ruthless exactions of your race. The papers would have convinced you of this. They would have told you how to prevent it. They will even now help you to recover its lost fertility. When you took them, was it to read and profit by them? Your successful friend, the carpenter—does he not study the teachings of able writers in his trade? Does not the thriving blacksmith take care to keep himself posted up with the world? And you—*you*—do you ever read a word as to your business? Do you even provide yourself with market reports? Were you not so *unlucky* as to dispose of your corn last fall from 10 to 20 cents lower than what you afterwards found to be the ruling rates? Where are the marks of thrift, of even the most moderate success, about your place? No wonder indeed you complain of hard times. What could you expect?

"You have, indeed, heard of rotation of crops, of draining and other improvements. You have now and then chatted of the ridiculous pretensions of this implement or that machine to save labor, or make it more profitable. Did you ever care to inquire into them carefully and particularly?

"Yes, and you have tried them, and once or twice found the innovations of your neighbors worth heeding. Very well. Grant all this. Grant that you take advantage of every good example set in your county—that you are so wide awake as sometimes to improve upon the suggestions of others—that no advanced idea in the whole village escapes your attention. But what if you had the examples constantly brought before you, of the whole country, instead of your single county—the suggestions of long study and experience in the field and with the pen—the exertions of science toward advancement as well as labor, the aid of countless hours of research in the laboratory as well as long days of practice on the farm—what if you had all this weekly or monthly put under your eyes, and would give it the same attention as you now do to the talk and thought of your limited neighborhood! Do you think you would gain nothing? Can you believe that all this discussion constantly going on in agricultural papers, elucidates no *facts* that you ought to know, evolves no opinions that would set you right where you have erred, points out no improvements among the tens of thousands who read them, but those you already possess? No, friend SLOWSTICKS, you know better.

"To be sure what do *you* care for the interested theories of Prof A., or the two-sided opinions of Dr. B. or even the lively writing of Parson WHITE, or the able editorship of Gov. BLACK! Nothing,—and rightly, so far as any authority is given them by the personal identity of the writer. You should weigh carefully what you read, judge all things, and learn to exercise that mind of your own, as other people do in other pursuits.

"And yours is one, where, more than in any other, this is necessary. It is constantly dependant on the changeable seasons, in the varying degrees of heat and cold and moisture. The carpenter can by study lay out his plans, and when he has his drawings and specifications completed, ordinary skill will carry them out The timbers have but to be rightly morticed and justly measured, and the frame will certainly be ready for erection. But in your case it is different. Labor of the brain must constantly co-operate with labor of the hands

"And you cannot expect Providence to give increase unless you really *labor in earnest*. It is no half-work, no shiftless bisected system of toil without thought, for which you were destined. Ah! neighbor SLOWSTICKS, ponder all this with an unprejudiced mind, and then tell me what you think of Agricultural papers. I may be ready with a still further installment."

Hardiness of the Osage Orange.

Every fact throwing light on the character of this plant is evidently of great importance, when it is remembered that it gives more promise at the present time than any other plant as a material for hedges, and that the capital now in fences throughout the Union is not less than some hundreds of millions of dollars

One great reason of the superior hardiness of some trees over others, is the simple fact that they *ripen their wood* better. The Osage plant, under high and *rich* culture, continues to grow until late, and consequently the new and succulent wood is poorly prepared to resist extreme degrees of cold, and the young shoots are often much cut back by the frost. Last winter we had a more intense cold in Western NewYork than usual by about 20 degrees, and yet the Osage Orange was scarcely injured at all—it was rare to find dead shoots more than two or three inches long—while in comparatively warm winters, we have known much more to be destroyed. The reason of all this is, that last season, so great was the drouth that all the young wood ceased to grow quite early in the season, and ripened into unusual firmness before the approach of winter; while in other seasons the shoots have continued soft and succulent, and but poorly fitted for the attacks of cold.

The same contrast in results has occurred in one single season, under different influences. A few years since, we had two hedges of this plant, one growing on a comparatively elevated hill, and the other in a valley; the hill, from its position, escaped the intensity of the frost often experienced in the valley. Under equal circumstances in other respects, the plants would have been most injured in the valley; but there were other controlling causes, which greatly overbalanced these. The soil on the hill was very fertile, deep, rather moist, and thoroughly cultivated; that in the valley was but moderately rich, with a very dry gravelly bottom, and but slightly cultivated. The result was that the long and succulent shoots on the hill, growing six or seven feet in a season, were in some cases killed back two thirds their length—the others, which had only grown two feet, were scarcely injured, or only a few inches of the tips destroyed.

These facts show most conclusively that the hardiness of the hedges may be secured in almost any *climate by proper treatment*. A dry or well drained bottom, with a moderately fertile, but well cultivated soil, will secure the early ripening of the wood, and this result will be increased by suspending all cultivation during the last half of the season.

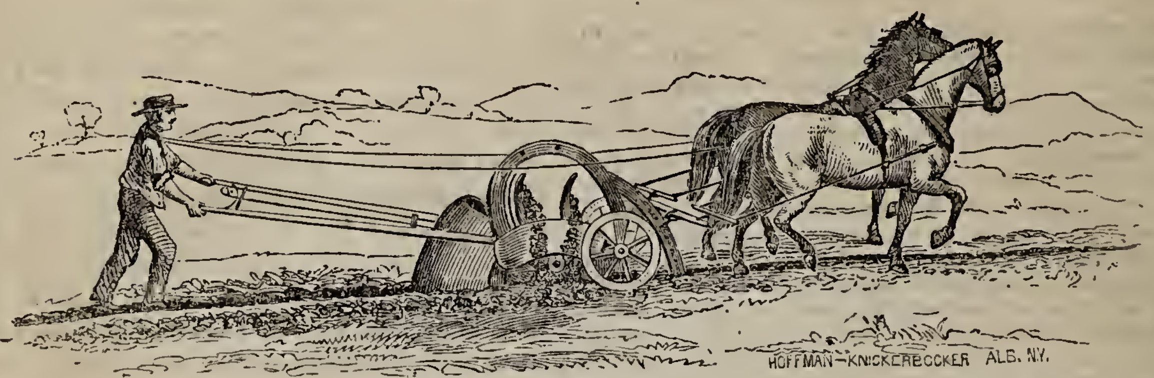
But it is only in quite severe climates that much precaution of this sort need be taken. We desire, of course, that our young hedges may come rapidly forward; and as nearly all the growth made during the summer must be cut back nearly to its starting point in order to thicken the bottom, it can make no difference whether this amputated portion be killed or not. When the hedge gets older, the growth is slower and more hardy, and thicker and more self-protecting.

We lately saw a proof of the reliable hardiness of the Osage Orange, on the grounds of LEWIS F. ALLEN of Black Rock, N. Y. A tree which had grown 16 years, had withstood the winters with little injury, or none but on the terminal shoots, and it now measures ten inches in diameter at the ground, and bears fruit, but never ripens seed.

Wintering Sweet Potatoes.

The 14th day of Oct. 1854, I dug about one-half bushel of sweet potatoes—packed them in two boxes—used dry plaster paris for packing, and placed them in a warm dry room. On the 13th day of April 1855, I planted them. Every one was sound, and as good as in the fall. They came up and grew as well as any I ever raised or saw in North Carolina. But I fear I shall fail in obtaining good potatoes. I write the above believing that sweet potatoes packed in dry plaster paris, and placed in a dry warm room, will keep perfectly sound twelve months. I have kept pumpkins and winter squashes one year in a warm dry room, and showed them at our annual fair as sound as when severed from the vines. ASA HUBBARD. *Middletown, Ct.*

CURING SHEEP SKINS WITH WOOL ON.—Take one teaspoonfull of alum and two of saltpetre; pulverize and mix well together, then sprinkle the powder on the flesh side of the skin, and lay the two flesh sides together, leaving the wool outside. Then fold up the skins as tightly as you can and put them in a dry place In two or three days as soon as they are dry, scrape them with a blunt knife till clean and supple. This completes the process, and makes a most excellent saddle cover. Other skins which you desire to cure with fur on, may be treated in the same way.


HOFFMAN–KNICKERBOCKER ALB. N.Y.

PRATT'S DITCH DIGGER.

Pratt's Patent Ditch Digger.

A new era has dawned within a few years upon successful and profitable farming, by the introduction a thorough system of underdraining. Crops are put in many days earlier in spring, drowning out is prevented, severe drouth is unfelt, roots penetrate deeply the mellowed and porous soil, cold soils are made warmer, manure is made more accessible, and economy of labor promoted by admitting the easy working of he earth at all times.

But the *labor and cost* of underdraining have deterred many from availing themselves of these advantages. To apply the system thoroughly to an acre of land, by cutting ditches at regular intervals of two and a half rods, requires sixty-four rods of drain. At twenty cents per rod for cutting two and a half feet deep, twelve cents a rod for tile, and five cents and a half more for laying the tile and plowing in the earth, the cost is twenty-four dollars per acre. This expense will doubtless be lessened in a few years by a reduction in the price of tile in consequence of the larger demand, but still more so, we think, by the use of PRATT'S DITCH DIGGER, invented by R. C PRATT, and manufactured by PRATT & BBOTHERS, of Canandaigua, N Y.

This machine is a new invention, and is not perhaps fully perfected in all its parts, yet it has already given experimental promise of great value. In a recent trial on the farm of the late JOHN S. BATES, of Canandaigua, before a committe of the Ontario County Agricultural Society, and several distinguished agricultural gentlemen, among whom were JOHN JOHNSTON and R. J. SWAN, of Geneva, widely known for their success in extensive underdraining, its performance was eminently satisfactory. When we reached the ground, at half past eleven in the morning, a ditch 44 rods in length had just been commenced, and after suspending operations an hour or two for dinner, we found the depth at half past three to be 21 to 23 inches, admitting of its easy completion before night. The two horses which drew the machine, worked very moderately; the soil was a hard and stiff brick clay. A portion was stony, and on this part a man was employed with a crow-bar to loosen and throw out the stones as they were successively laid bare.

We have also tried this machine on our own land, where the ground was quite stony, and have found it to succeed well, although the speed of its work was greatly impeded by the stones. In such ground two or three hands are needed to loosen stones, and to throw out those which are loosened by the plow share.

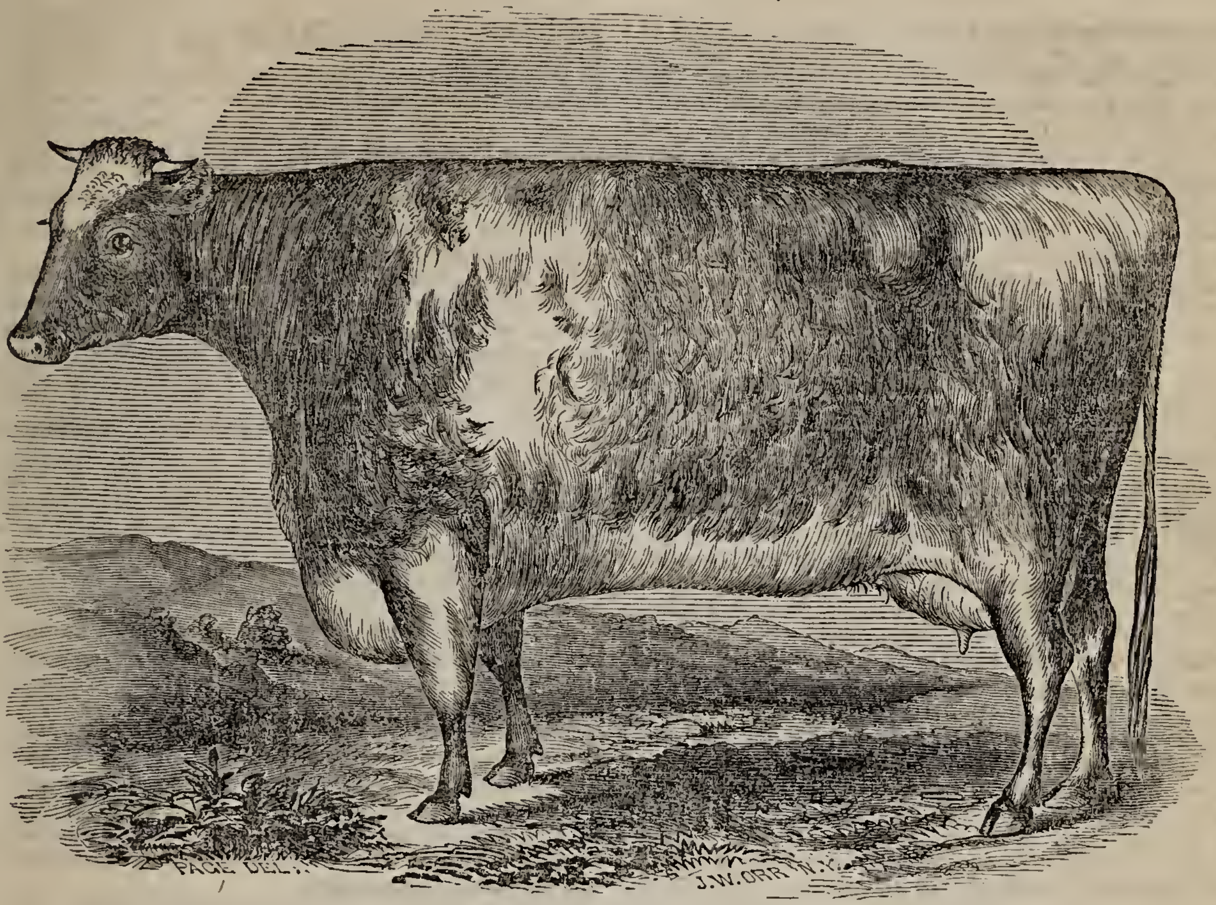
The principle on which the machine operates is a simple one. A small plow share runs along the bottom of the ditch and loosens up from one to three inches of the earth; the revolving shovels carry up the loosened earth, until it reaches the top of their revolution, when it falls by its weight on an inclined platform on each side, down which it rolls, and drops on each side of the ditch. Motion is given to the wheel of revolving shovels, simply by its running over the earth, and its motion is precisely similar to that of a carriage wheel over the surface of a road. When the soil is wet and adhesive, a small wheel is placed at the top of the machine which clears the shovels of the earth. It will cut from eight inches to one foot wide, and fully two and a half feet deep, and may be made to cut three feet deep if desired. It is mostly of iron, and is strong, and not liable to become injured by use. The price, we believe, is $150.

From all the experiments we have witnessed, we have made the following estimate of its power of performing work:—In soil of medium hardness, and which is nearly or entirely free from stone, a good team without undue exertion, driven by one man, will cut from seventy-five to one hundred rods of ditch, two feet and a half deep, in a day. Where the ground is stony, the length will be reduced to fifty or even to thirty rods per day; and a very hard and dry soil will also lessen the speed of its work. In mucky or peaty land, free from large roots, and at a season of the year when dry enough to bear horses, one hundred and fifty rods a day would be of easy accomplishment. In an actual experiment in such soil, the ditch was cut by passing only seven times, after the first furrow was made with the common plow, or about four or five inches at each passage of the machine.

On the whole, we regard PRATT'S DITCHER as now made, as standing high in the list of modern agricultural inventions; and at a time when labor is becoming scarce and high priced, likely to prove of immense advantage to improved farming.

◆

RANCID BUTTER it is said may be rendered sweet and good by churning it in new milk. Try it, and give us the result.


PAGE DEL.
J.W.ORR N.Y.

Short-Horn Cow Nymph II,

Owned by Messrs B & C S Haines, Elizabethtown, N J. She was calved July 16, 1850, and received the first prize in Class of Heifers in 1852, at the Fair of tho American Institute, and also at the Queens County Fair. For Pedigree, see Am. H. Book, vol 2, p 495.

The Pomological Convention at Burlington.

According to notice, the North Western Fruit Grower's Association held their fourth annual meeting at Burlington, Iowa, Sept 25th, 26th and 27th. We were so fortunate as to be present on the second of these days, and very much regret our inability to have furnished the incomplete and hurried account which this brief visit allowed, in time for last week's issue. We should have been most happy could we have been present on the other days of the meeting.

The show of fruit was, beyond comparison, the finest *we* have ever seen. It was said, however, to be scarcely superior to that at Chicago two years since. (It will be remembered that last year, owing chiefly to the drouth and general failure of fruit crops, the Association held no meeting) It certainly took most of those present from the Eastern States nearly as much by surprise. Specimens of the same varieties, shown by enterprising exhibitors of our State and by those of Illinois and Iowa, would certainly be scarcely recognised as relatives. Some of our western friends took no little delight in the diminutive appearance of the more oriental samples, in comparison with their one-half larger brethren from the western soil. They should have been, and they were glad for the opportunity of comparing them. For our part wo shall hardly dare hereafter to commend, save with mental reservation, what we have hitherto thought our noble apples from Clinton Co, our splendid pears and peaches from Rochester, Geneva and Syracuse.

The Association consists chiefly of nurserymen, aided by some amateurs, who desire to place on a better basis, the culture and nomenclature of the region it embraces, and to awaken through it a greater interest in fruit growing, both for family and market purposes. It is hence an object for them, and for nurserymen at the east who find their largest markets in the broad fields of the interior states, to exhibit collections from their specimen trees, although thore are no premiums offered.

Owing probably to the season, much of the fruit we have seen this fall has been *russeted*, as one might say, with a more or less abundant covering of specks, which though in no way injurious to it, nevertheless somewhat mars its beauty. This was especially the case with even the finest samples shown at the Ohio exhibition, and we found few at Burlington altogether fair. The finest and freest from this defect, were perhaps the apples shown by Alex. Hillary, Esq., of Burlington. We really never saw any thing to equal or approach his Yellow Belleflowors, Fall Pippins, or Maiden's Blush, save some other nearly equal plates in the same room. He also exhibited some beautiful *looking* Peaches. W. F. Collbaugh, Esq., also of Burlington, showed some of the finest Pears present—we visited his gardens in the afternoon and had the opportunity of ascertaining that they were the genuine products of his trees, and not Barnumized artificialities, like the sections of the Big Tree at the Crystal Palace. Indeed, his trees themselves were among the most thrifty we have seen. Our friend J. F. **Tallant**, Esq., of Burlington, was on hand with samples from his garden, where we also had the pleasure of inspecting the fine young trees from which they were gathered, now we think in their fourth year, and heavy with a full crop. Among Mr. **Coolbaugh**'s finest specimens, were some of the Vicar of Winkfield, Beurre Diel and Louise Bonne de Jersey varieties.

Among other *Burlington* exhibitors were Neally & Bros., David Leonard, with Fall Wine and other fine apples—the variety named seemed by the way to be quite a general favorite; Ogden & Copp with Apples and Peaches; E. May, (by whom the room was neatly decorated) with a *Blood Cling Stone* weighing 12 ounces, Apples, Pears and specimens of the Osage Orange fruit; Avery, Comstock & Co., with a large assortment; and Messrs. Woods, Jessy, Samuel & Co., W. Hunt, and Jas. Clark—the last with a beautiful Peach, marked as a seedling.

Prominent among the large collection of Apples, was that of the President, **Arthur Bryant**, Esq., of Princeton, Ill. Finley & Dwire, of Davenport, Iowa, were among other considerable exhibitors. Smiley Shepherd, of Hennepin, Ill., and Lee Hull, of Fort Madison, Iowa, were nearly, if not quite, the only contributors of grapes. Their Isabellas and Catawbas were very fair. Other notice-worthy samples of the different fruits were shown by C. R. & N. Overman, of Canton; E. Harkness & Sons, Trivoli; E. B. Coleman, Peoria; Lewis Ellsworth & Co., Naperville; T. McWhorter, Pomeroy, all of Illinois; Wm. Stewart & Sons, Quincy and Payson, Ill., and Hannibal, Mo., R. & G. B. Brackett, Denmark, Iowa; John R. Toll, Pontoosuc, Ill.; Isaac Negus, Muscatine, and Fahnestock & How, Dubuque, Iowa; John Bellinger, Dover, Rogers & Woodard, Marengo, D. F. Kinney & Co., Rock Island, A. R. Whitney, Franklin Grove, E. S. L. Richardson, Kendall, and the Icarian Community at Nauvoo, Illinois; and W. J. Wright, of Fairfield, and P. D. Humphrey, of Tipton, Iowa.

The eastern exhibitors, whose collections we noticed, were Messrs. Ellwanger & Barry, of Rochester, T. C. Maxwell & Bro., of Geneva, Thorp, Smith, Hanchett & Co., of Syracuse, Manly & Mason, of Buffalo, and Lewis Burtis, of Rochester.

In the hasty examination of the tables which we allowed ourselves, it is by no means impossible that the names of owners of some of the finest specimens shown, may have escaped us; we have endeavored to be as accurate in our notes as we could. We have devoted so much space to this part, that we should have little room for the discussions, even had we been present at them all.

In the afternoon we were indebted to Mr. Tallant for a drive about the suburbs of Burlington, a better country for fruit growing than which, it would probably be difficult to find. We visited, beside the places above mentioned, that of his Excellency, Gov. **Grimes**, which is so situated as to command a splendid view of the river and the adjacent country, and the prosperous nursery of the Messrs. Neally, whose fine young stock, showed remarkable thrift and growth. We also looked in upon the vineyard of a German, who has, since 1851, given considerable attention to wine-making. From half an acre of vine-cuttings set out in that year, we understood that he made in 1854 about 150 gallons, and that he had this season put out about two acres in addition—the ground being all prepared by spade trenching. He grows only Catawbas, and some that we tasted were very good, although the season appears to have been only tolerably favorable.

The Address of Mr. **Barry** was delivered Wednesday evening in one of the city churches, and although he apologized in some neat introductory remarks, for presenting to the mixed audience of ladies and gentlemen present, what had been prepared only for the fruit growers themselves in their own business assembled, he held closely the attention of his audience, and at the same time dropped some valuable hints for nurserymen, drawn from his own experience and knowledge.

— The Proceedings of the Meeting were all put on record, and will shortly appear in print. We will meantime anticipate by a brief summary, abridged chiefly from the reports furnished by the correspondent of the Chicago *Democratic Press.*

The Association was called to order Tuesday evening, by the President—reports of officers submitted, and various unimportant business transacted. Committees on synonyms of Apples; of Pears and other fruits; on Business; on Seedlings, and on Publication, were appointed. In the afternoon, discussion on Plums was the order. Messrs. Fahnestock and Barry were interrogated as to Mr. Mathew's Remedy for the Curculio, but the impression appeared to prevail, that the old means of jarring was *the* way, after all. Messrs. Brackett, Leonard, Dunlop, Albright, and the President, Mr. Bryant, were among others who took part in the debate. The subject of a regulated tariff of prices for fruit trees was brought up, but very properly, as we think, dropped. In the evening, Dr. Hull, of Alton, gave an interesting account of his plum culture, and his manner of treating the curculio. His experience is very strongly in favor of jarring.

The first subject in order Wednesday morning, was the consideration of the leaf blight on pears. Messrs. Barry, Fahnestock, H. Avery, Shepherd, Harkness, the President, and others participated. Dr. Hull then gave an interesting account of his mode of growing peaches, which is said to have been very successful and profitable in its results.

Of Thursday's proceedings we have no report, save that the citizens gave the Association a dinner at the Barret House in the evening, which drew forth several spirited and interesting speeches.

On the whole the prosperity and usefulness of the Association have, we trust, been not a little benefitted by its late meeting, and we are sure the Eastern men present will carry back such reports, that should it give timely notice of the next, both they and their friends, will take care and "be there to see." L. H. T.

Autumn Transplanting.

This subject has often been written upon, but from the continued inquiries made us, we are induced to give briefly the chief reasons for and against the practice.

There are certain conditions under which fall transplanting is always advantageous, and generally best. These conditions are *hardy trees*, and *a dry soil.*

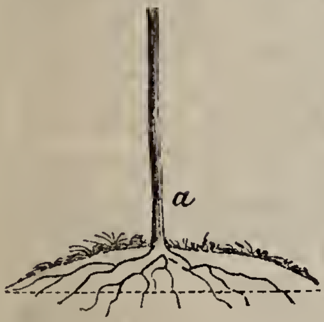
1. They should be *hardy*, for a tender tree is always made more susceptible to the cold of winter, by removal in autumn.

2. The soil should be *dry*, or admit such water as falls upon it to pass off freely. It is very severe treatment to allow water to collect about a tree, and then to freeze hard among the newly set roots.

Apple trees are very hardy, and generally succeed best if set out in autumn, as the soil becomes well settled about them, and they have nothing to do early in spring but to commence growing. In this way they get an earlier start. If the roots of a fall-transplanted apple tree are examined in spring about the usual time for digging trees, a new set of rootlets will be found pushing out from the old ones, at least a week or two in advance of any that may be emitted by spring set trees. If, however, they are dug in the fall and well laid in, the same rootlets will be formed early in spring, and such trees, if set out carefully so as not to injure these, will possess a decided advantage over such as are dug in spring.

Cherry and pear trees are nearly as hardy as the apple, and may be advantageously removed in autumn, if the precautions we have pointed out, are observed.

Peach trees are half-hardy, and their success can be relied on, only under favorable influences. For instance, the wood should be *well ripened*, otherwise the shoots, or at least their tips, will be winter-killed. The ground must not only admit the water to flow off freely, but must not retain it in the subsoil. Hence, if peach trees are set in the autumn in tenacious soils, there should be a sufficient drainage from each hole, to let out all the water to the bottom. This drainage may be affected by plowing a deep trench or furrow, before digging the row of holes, and afterwards filling the bottom of the furrow with brush and then straw, before returning the soil to it. The safety of the trees will be still further secured by very shallow holes, or by setting the trees on the surface of the ground, and making a broad flat mound upon the roots, as represented in the annexed figure. This practice has another advantage, namely, a deeper bed of the enriched surface soil for the roots to penetrate. With these precautions, we have found no difficulty in transplanting peach trees in autumn.



It is absolutely necessary in all cases, and with all sorts of trees, hardy and otherwise, to secure them from being blown about by the wind. Small trees, with long, carefully taken-up roots, will not be easily moved, and all that is necessary with these in any case, will be to bank up a small steep mound around the stem a foot high—which also will protect them perfectly from the mice, and also assist in keeping the frost out of the roots, by the depth of the soil above them—these mounds to be removed the following spring. But larger trees, and especially those with the roots cut short, will require staking. The stake may be driven with less danger of hitting and injuring the roots, if the operation is performed before the hole is filled.

When all the preceding precautions cannot be properly taken, it is best to procure the trees in autumn, and "lay them in by the roots," or dig a trench or hole, place the roots in, and bury that and half the stems for the winter. But especial care is needed to fill in all the interstices with finely pulverized earth; to place them on a dry bottom, or else on the surface of the ground, and bank up to them; and where injury from mice is apprehended, to set them nearly upright, and throw up the earth in the form of a mound around them. No mouse will ever ascend a mound of fresh earth under the snow; and if there are no interstices among the trees, they will never touch them.

It must not be forgotten, however, that important as is the proper transplanting of trees, their subsequent success, fine growth and productiveness, depend more on good, clean, and careful after culture, than on every thing else together—and that the planter might as well expect to raise 40 bushels of corn in an unplowed meadow, as to look for fruit or young trees growing among grass and weeds.

Rensselaer County Ag. Fair.

The Fair of the Rensselaer Agricultural Society came off last week at Lansingburgh, where the Society has permanent grounds, fixtures, &c., and as usual was one of much interest. Come and let us take a walk together through the grounds. In the shed to the left are the vegetables; and a finer collection is seldom seen. What fine, large potatoes are these? They are "Mountain Junes," grown by M. File, Brunswick. J. G. Walter, Van Schaiek Island, makes a great show. One of these Philadelphia Drumhead Savoy Cabbages would furnish a meal for an ox, or half a dozen Dutchmen. These cauliflowers, too, are fine and unusually large, and prove that this delicious vegetable can be raised here in perfection, if proper care is used. We can beat the world on onions any day, as these specimens of Mr. Walter's testify; and it would be hard to beat these black peppers, to say nothing of the other vegetables, grown by J. B. Ford of Troy. Here we are at Floral Hall, and there is that enthusiastic florist, Mrs. James Van Namee, arranging a pyramidal bouquet of verbenas. It contains 80 varieties, many of them seedlings of her own raising. She has a fine display of flowers, as has also, on the opposite side, Dr. Newcomb of Pittstown. Here Mrs. L. E. Smith of Mechaniesville, has a "floral ornament" in the shape of a stand made of flowers The top is a bed of fine Asters arranged in rows as thick as they can be set. These Dahlias of E. Van Alstyne are truly magnificent. It would be difficult to find a larger and better assortment. But the room is crowded; let us walk into the fruit department. This plate of magnificent Detroit red apples, and these fine Fall Pippins and Alexandepɪnoʌ.sr prove attractive in Covent Garden Here is a fine collection of pears. These Bartletts and Van Mons' Leon le Clerc are very good. There is a railing in front of the tables, which keeps the spectators three feet from the fruit so that we cannot ascertain the name of the exhibitor. Here comes one of the exhibitors. "Will you allow us, sir, to come within the railing for a few minutes to examine the fruits?" "*Can't do it.*" All right; the rules must be obeyed; but the next time we go to the Rensselaer Co. Fair, we will take a telescope for the examination of the fine fruit placed on tables from three to seven feet from the railing. Even viewed from this distance, however, the show of apples, pears and plums is rarely excelled. We *guess* that Mr. Geo. Vail of Troy and the "Ida Nurseries" are the largest exhibitors.

The Stock department is not very well filled. These brood mares, however, are well formed, heavy bodied, good sized, active animals, that would stand a fair chance of taking premiums at any of our State Fairs. There is a considerable number of well matched steers, the Durham grades predominating. Here is a pretty pair of Devons, yoked together, and blanketed, to keep the dear creatures from suffering from the cold and heat, of this delightful September day—and the public from seeing their good points. Here is a brace of milch cows, belonging to P. P. Dater, Brunswick, that it would be hard to beat. They are *well selected* native and ¼ Durham. Here are some fine Durham heifers owned by G. W. Ostrander, Hoosick, and these Devons of Geo. Vail are pretty near the perfection of the article.

There are but few swine shown. This Suffolk sow, belonging to E. M. Van Alstyne, Troy, and one or two other pens of the same breed comprise most of the good ones. Sheep, too, are poorly represented. R. C. Derrick, Brunswick, had a few fair South Downs, and here is a good Cotswold ram.

Let us take a glance at the poultry and we have done. Here is a pair of fine Bremen geese belonging to J. P. Levans, Lansingburg. These coops are all full of pretty pigeons, and those of the Shanghai fowls. Here is a large piece of paper on a coop of Black Spanish hens; what does it say?

"22 of these hens have laid 1800 eggs since March

1, to Sep. 18, 1855 Twenty of this stock can be fed upon the same amount of feed per day that will keep six Shanghais. Besides this they are a hardy, healthy fowl for the farmer, mechanic or merchant."

New-York State Fair at Elmira.

ELMIRA, N. Y., Thursday, Oct 4, 1855.

Tuesday and Wednesday were gloomy days for tho friends of the N. Y. State Agricultural Society. The rain fell almost incessantly, and the attendance was consequently very poor. To-day. however, has boen fair, and there is now on the grounds a vast concourse of people, so much so that is difficult to see. and impossible to examine, any of the more attractive objects of the exhibition. I have, therefore, retired from the crowd to a pleasant room provided for the "Press," and will endeavor briefly to allude to some of the things already visited.

Let us take them as they come. Here to the right of the entrance gate, are the sheep and pig pens. Sheep are seen to poor advantage in a rain storm, but theso 55 head of Silesian morinos shown by Messrs. Campbell, Chamberlain & Ladd, are covered with such close and gummy fleeces that they are little affected, and are certainly the most beautiful sheep I have ever seen. There are also 75 head of French Merinos and a few Saxons that are very superior. These long wools, dripping wet, cut a sorry figure. Here is a pen of Leicester ewes recently imported by Messrs. Hungerford & Brodie of Adams, Jeff Co. N. Y., that cannot be beat. These two bucks are also excellent, of fino form, and very large—if anything a little too large for Leicester, though they are not coarse. Messrs. H. & B show 34 head of Leicesters, all good. Wm. Webster of Sennett, Cayuga Co., shows 34 head, and Jacob Albright of Tompkins Co., 7 head of good Leicesters. There are 109 head of Long wools shown in all, and they are a commendable improvement over former shows. The show of South Downs is no large, and does not compare favorably in quality with many previous exhibitions. H. N Washbon, of Morris, Otsego Co., showed 21 head. The lambs were very good. Geo. Hartshorn showed two good bucks. Col. Sherwood of Auburn, also exhibited some superior South Downs. These lambs are a cross between a Leicester ram and common merino ewes, and afford good evidence of the advantage of such a course of raising lambs for the butcher. One of them, five months old, weighs 110 lbs On the whole the show of sheep is tho largest and best ever made in the state.

The show of swine is good. Here is a pair of Neapolitans shown by Charles Morrell of Tompkins Co. which attract much attention. They are probably too delicate for this climate, but like the Chinese, of much use in improving the common breeds. C S. Wainright of Rhinebeck, Duchess Co , A. B. Conger, of Haverstraw, Rockland Co., and others show some beautiful Essex hogs. Col Sherwood, G. Malone of Macedon, and E. C. Bliss of Westfield, show some excellent Suffolks. Col. J. Paxton of Cattawissa, Penn , exhibits four improved ' Chester County grass breed " pigs that are perfect beauties, somewhat resembling the improved Middlesex, and like them possessing the quality of fattening at any age. Hungerford & Brodie show a magnificent Yorkshire boar. S. P. Chapman and others show good Berkshires.

Here we come upon the committee examining in a ring the two year old Devon hulls. There is a fine lot of them This one belonging to Sylvanus Burtiss, of Phelps, Ontario Co., is a beautiful fellow, finely bred, and of good size. That one standing by his side belonging to E C. Bliss, Westfield, is a splendid two year old, larger than the other, but perhaps not so finely and evenly bred. I am glad I have not to decide which is the best. The show of Devons is tho best yet made in the state. though there are some good herds not represented L. H. Colby of Tompkins County, shows a good lot. E G. Faile West Farms, Westchester Co., shows some superior Devons of his own breeding, and three imported ones. C. S. Wainwright, of Rhinebeck, exhibits six hoad that it will be difficult to beat. B. A. Andrews of Waterbury, Ct. exhibited a good bull and other Devons.

The show of Short Horns is very fine, fully equal, I think, to that of any former Fair. S. P. Chapman of Clarksville, Madison Co., exhibited 11 head, two of which were imported. Hungerford & Brodie's recently imported hull *St. Nicholas*, is a splendid animal, and *Lady Newham*, an imported two year old, is not often exceiled J. G. Williams of Tompkins Co., exhibits 7 head. J. W. Taylor of East Bloomfield, showed two beautiful cows recently purchased by him in Kentucky. W. T. & N. Chappell of Avon, show a superior six months old bull, purchased from the Livingston Stock Importing Company. James S. Wadsworth of Geneseo, and others, also exhibit some good animals imported by this Company. Adam Ferguson of Woodhull, C. W., shows his 3 year bull *Victor*. I saw this bull at the Provincial Fair of Upper Canada, last year, where he took the first prize as a two year old. He is now in high condition, remarkably good in the hind quarters, and altogether a superior animal, although perhaps a little coarse in the crops. Col. Sherwood of Auburn, and other well known breeders, exhibit good Short Horns. L G Morris shows nothing.

In Ayrshires, the show, although not large, is good. Hongerford & Brodie are tho largest exhibitors. They show five head of very useful animals. A. B. Conger of Rockland Co , exhibits a good bull and cow.

Among the Herefords we once more find the fine herd of Mr. Sotham well represented. M. C. Remington also shows a very superior three year old Hereford bull.

The show of milch cows is quite inferior. There are a few good Durham and Devon grades, and some tolerably or intolerably fat cattle, but nothing particlarly worthy of notice. A "full blood" 4 year old Holland cow, shown by E P. Brooks of Chemung, attracts some attention. It is said that she "gave an average of 21 quarts of milk daily during the month of June last, now 15 to 18 quarts daily." There is a poor show of working oxen. Horses ditto. Poultry generally, and Shanghais particularly, are nowhere.

There is a good collection of Agricultural Implements, machines, &c,, and the best exhibition of Manufactured articles ever made in the state. Time, however, will not permit me to refer to them at this time.

In grains and vegetables, the show is very poor. Our Albany and Rensselaer County Fairs were much superior to it in this respect. There are a few magnificent heads of cauliflowers shown, and I was amused a few minutes since while examining them, at being asked what they were, by some of the Lords of the soil, and whether they were eaten raw or cooked! Is it possible that any farmer can be so ignorant? Hamilton Morrison shows 30 varieties of potatoes in a neat case. C. F Crossman of Rochester, is one of the largest exhibitors in the department.

The show of fruits is truly magnificent. Hovey & Co., of Boston, show 210 varieties of pears, generally of good size but somewhat spotted as compared with those grown in Western New-York. Ellwanger & Barry of Rochester, show 207 varieties of pears, and 130 varieties of apples. Frost & Co., of Rochester, show 74 varieties of pears and 64 of apples. Thorp, Smith, Hanchett & Co of Syracuse, T. C. Maxwell & Bro., of Geneva, Col. Frost of Chemung. C N. Merriman of Elmira, and other nurserymen exhibited largely. E. Dorr of Albany shows 33 varieties of plums. E. S.

Hayward of Brighton, shows 50 varieties of apples. There is a good show of grapes. A. S. Driver of Elmira, exhibits a magnificent bunch of the White Hamburgh There is a good collection of cut flowers, but the show of green-house plants is very meagre. Mrs. J. T. Van Namee and Mrs Wm. Newcomb of Pittstown, Rensselaer Co., have a fine display of verbenas, dahlias and other flowers. The former 350 varieties, the latter, 300. Frost & Co. of Rochester, show 120 varieties of roses, and a fine collection of dahlias, &c.

There is a good collection of cheese and butter. S. M Cox of Otto, Cattaraugus Co., exhibits some very superior cheese. They weigh about 108 lbs. each, and are made from 40 cows. Mr. C. sets the milk at about 90° and scalds as high a 110° to 115°. He presses the cheese two days. The butter was of about average quality only.

At this present writing the grounds are crowded, and I understand that the train on the Erie road from the east has just arrived containing 30 cars crammed with passengers. Should the weather continue fair there will be a large gathering to-morrow. Had it not been for the rain the two first days, the Fair at Elmira would have been one of the most successful ever held by the Society H.

On Friday afternoon, about 10 000 persons assembled to hear the annual address by Gov. Wright, which was pronounced "very good," after which the reports of the committees, awarding prizes, were read. Upon the whole, the Fair was nearly all that would have been desired. The receipts amounted to about $11,290.

The Michigan State Fair.

The Seventh Annual Fair of the Society of this State drew what we were told was an unusual large attendance at Detroit last week. The train from the west on which we reached the city, certainly had no small compliment for one trip—thirteen or fourteen long cars being crowded, platforms and all. And hence we may suggest to our railroad authorities through the whole country, that they *underrate*, almost without exception, the numbers for which "at Fair time" they will have to provide accommodations. To do them justice, however, they strain every nerve on the occasion to make up for the lack of previous attention, but never without creating some discontent among those who will not consider the peculiar difficulties of their position. Both they and the public, have to take its measure of inconvenience with every good thing.

And among things good in theory, but vastly inconvenient to private investigators, is the law of the Michigan State Society, which prohibits the name of the exhibitor from being ticketed on what he exhibits. This will account for the peculiar barrenness of details in all we have to offer. It was actually impossible,—at least for any ordinary degree of industry, patience and perseverance,—to ascertain either owner's names, or facts in relation to articles exhibited.

The Cattle shown were none of them, unless we except a few Devons and one or two Short Horns, of more than average merit. The number of Natives and Grades was large—that of pure Stock fair. Among the latter we think Devons were rather the best in quality, as Durhams certainly were in quantity. We saw no Ayrshires, and but one Hereford, a very good Bull, whose owner, of course, was *non inventus*. Mr. Silas Sly, of Plymouth, had eight head of Short Horns, including a Bull calf of 4 months, which attracted considerable attention Messrs. D. M Uhl, and John Starkweather both of Ypsilanti, were other exhibitors of this breed whom we chanced to meet Mr. M. Shoemaker, of Jackson, exhibited "Royal George," a 3 year old Devon Bull, and a fair specimen of the breed, a cow and some young stock of the same.

The Sheep on the grounds were in large numbers and of a good degree of excellence. Mr. G W. Gale of Ypsilanti was one of the principal exhibitors of Merinos—his lot including two pens of French, three of Spanish and several of Grades. G. W. Gillett, of Sharon, showed Saxons and Silesians. Our Vermont friends, Bingham of Cornwall, and Kimball of Rutland, were, as usual, on hand.

Among the Swine, there were some excellent Suffolks, a few samples of the Essex, and we noticed, "all alone by himself," an attractive looking Berkshire sow. In this department, exhibitors seemed, naturally enough perhaps, particularly unwilling to be seen in company with their interesting charges.

We omitted to mention in its proper place above that the competition among working Cattle was quite spirited—some good, and so far as we had opportunities of judging, well trained oxen being on the ground.

Horses were out in very good numbers, but it would be unfair to give the few names we were able to obtain. The first day we were on the grounds, Wednesday, many of them were away at some races, and Thursday morning, we met little better success in "the pursuit of knowledge." The chief show was to come off, we understood, that afternoon, and Friday, when we were unable to be present.

The mechanics and merchants of Detroit, and not a few from distant localities, showed much enterprise in contributing to their department, which was one of the chief features of the Exhibition. Cheese was shown in tolerable quantity. Implements not very largely. There was quite a collection of Poultry. Some of the Fruit appeared very fine indeed—even after seeing the Burlington Show. A splendid assortment of 60 varieties Winter and 40 of Autumn apples was exhibited by one *incognito*, while it would be difficult for any region of country to excel some scattered plates of both Apples and Pears The collection of the latter from the nurseries of Jas. Dugall, opposite Detroit, included 58 varieties, and was really an excellent lot. L. H. T.

New Hampshire State Fair.

The sixth annual exhibition of this society was held at Manchester on the 12th, 13th and 14th ult. It was largely attended, and quite successful. From the report in the *Granite Farmer*, published on the spot, we should gather that there were but few sheep, swine, or poultry exhibited, *as nothing is said about them.* It says:

We saw no Short Horned bull on the ground, and only one or two graded animals having affinity to that blood. There were no Ayrshires, male or female; but one exhibition of mixed Ayrshires, which were handsomely shaped and milky looking animals. We saw one young bull, one fourth Durham, one fourth Ayrshire, and half Devon, 4 months old, which looked to us to be quite a model of that class of cattle designated for draught purposes.

There never was a better display of full blooded milch cattle in this state than this fair furnished. The greater number were Devons, all of which were finely bred animals. The bulls were very superior; and what was a great quality in them, they were not overburdened with fat, which is a depreciation in all animals kept for breeding purposes. It was our opinion after several examinations, that the young showed finer points than the more aged; and associating this with the fact that they are the almost direct produce of imported stock, the improvement is the more gratifying.

The show of "Fat Stock" was confined to one animal, a 7 year old Durham cow, of good, but massive proportions, weighing 2,700 lbs., and 8 feet 1 inch girth. She had had two calves.

On one of the evenings during the Fair there was an agricultural meeting which appears to have been one of unusual interest. The principal subject discussed was in reference to the production of at least enough wheat for home consumption. Many useful facts were elicited which we may notice hereafter. The general opinion appeared to be that wheat could be grown to advantage in New Hampshire. We have no doubt of it.

Germination of Thorn Seed.

Messrs. Editors—Will you please inform me through the Cultivator, how the seeds of the common Thorn can be made to germinate. I obtained a quantity of the seed, deprived of the fleshy part—mixed them with earth, and exposed them to the frosts of winter; but found in the spring that not a single seed had sprouted. From the information to be had from the experience of others, and my own observation in reference to this plant and others for hedging, I regard it as the most valuable shrub for this purpose we have, and especially so for farm hedges. G. P. Reevs. *Goshen, N. Y.*

It often happens, and especially with certain species of the thorn, that the seed will not germinate sooner than the second year. Doubtless artificial freezing and thawing would assist the process—or a quick application of hot water followed by full exposure to intense frost, several times repeated. Will some of our correspondenrs, who have had successful experience, please answer our correspondent's question. The occasional failure, however, and in some places, general failure of the best sorts of thorns as hedges, after years of success, renders it an unreliable plant. We should much prefer the Osage Orange; or if high cultivation can be given, so as to promote a strong, stiff growth, the Buckthorn.

Wintering Small Evergreens—Hardy Shrubs, &c.

How shall I winter Norway Spruce and other evergreens, imported last spring, 3 to 4 inches high. I fear the frost will heave them out, if left as they are in the rows.

Please answer through the Cultivator, and give me also a list of 8 or 10 of the best deciduous shrubs, and 4 or 5 evergreen shrubs, and how propagated. I want them all to be perfectly hardy and easy of cultivation.

I would like also to have you give a list of the best hardy Climbers. Is the Ivy hardy in this climate?

Please place those in the different lists in order as you consider them the most valuable and oblige, Jas. W. Gray. *Ball's Pond, Conn.*

If the soil is light, and with a dry bottom, little difficulty will be experienced. If placed thickly in a bed, and covered loosely but completely with evergreen boughs, the danger would be still less. If the soil is heavy, it must be very thoroughly drained, both at the surface and beneath, and the earth trodden compactly about the roots—covering with evergreens would prove an important assistant.

Deciduous Shrubs—Japan quince, propagated by suckers and grafting; Tartarian Honeysuckle, by cuttings; Purple fringe, by layers; Siberian Lilac, Dwarf flowering-Almond, Deutzia scabra, and several handsome Spiræas, by suckers and layers.

Evergreen Shrubs—Tree box, juniper, Savin, and American, English, and Irish yew—the first three by layers and cuttings—the rest by seeds. We should not forget the Roses among deciduous shrubs.

Climbers—The Ivy is hardy as far north as 41° or 42°. The finest climbers besides this, are Queen of the Prairies and Baltimore Belle roses; Wistaria; Bignonia radicans; Scarlet trumpet, Yellow trumpet, and woodbine Honeysuckles; Clematis flammula, viticella, and virginica; Aristolochia; and Periploca.

Fruits for Northern Iowa.

Messrs. Editors—Will you let me know, through the Country Gentleman, what sorts of apples, pears, peaches, and plums, are best adapted to the northern part of Iowa, to commence the nursery business with? A Subscriber. *Whitinsville, Sept.* 24, 1855.

Without attempting to give a complete list, the following may be taken as a selection of some of the best.

Apples—Early Harvest, Red Astrachan, Sops of Wine, Early Strawberry, Benoni, Golden Sweet, Duchess of Oldenburgh, Hawley, Autumn Strawberry, Porter, Gravenstein, Melon, Rambo, Fall Pippin, Broadwell, Tallman Sweeting, Jonathan, Red Canada, Vandevere, Westfield Seek no further, Belmont, Peck's Pleasant, Swaar, Rhode Island Greening, Roxbury Russet.

Pears—Madeleine, Doyenne d'Eté, Osband's Summer, Tyson, Bloodgood, Giffard, Bartlett, Seckel, Buffum, Brandywine, Virgalieu, Bosc, Urbaniste, Anjou, Louise Bonne of Jersey, Flemish Beauty, Napoleon, Onondaga, Washington, Aremberg, Winter Nelis, Winkfield, Easter Beurre.

Peaches—Cooledge's Favorite, Early York, Crawford's Early, George IV, Early Barnard, Morris white, Nivette, Old Mixon Free, President, Crawford's Late.

Plums—Lawrence, Columbia, Imperial Gage, Jefferson, Washington, Smith's Orleans, Lombard, Red Gage, McLaughlin.

An Ailment of Horses Kept Constantly Stabled.

Horses that are kept up, or in the stable, all the year through, and especially when they have no change or variety of food, but only hay and oats everlastingly, are very apt to get indigestion, or derangement of the stomach or bowels, in the form of want of appetite, feverishness, quick breathing, colic, gnawings of old wood, &c., &c. When a horse kept in the stable all the time falls off in flesh, or in appetite, or has any of the above symptons, the most natural and simple mode of management is to change his food, as by giving him roots, or corn stalks, or green fodder, or turning him through the day to grass. When the bad symptons do not yield to the employment of some such change of diet, perhaps the next best thing to do, would be, to make use of the following powders, which have been prescribed by Dr. Dadd for a case of this kind, with a view to the restoration of the vigor of the digestive organs. Take of

Powdered Gentian,....................	1 ounce
Do Ginger, ...	½ "
Do Salt,...	2 "
Do Charcoal....................	1 "

Mix thoroughly, and divide into eight equal parts. Give one with the food night and morning.

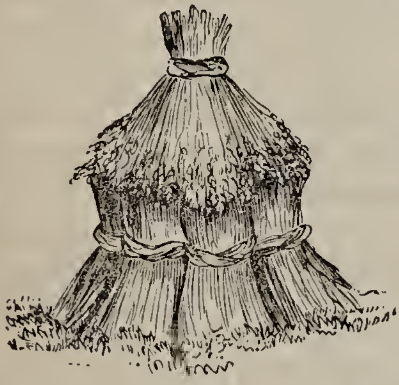
Disease in the Feet of Cattle.

Can you or any of your correspondents, furnish any information in regard to a disease that is among cows in this vicinity. First, they are taken lame in one foot, and after a day or two the foot commences to swell the hoof spreads apart, and a running sore is formed. Some of them gather and break at the upper edge of the hoof. It lasts from three to eight weeks, causing the cows to shrink of their milk and flesh. I have tried various things, but nothing to effect any cure. Any information given through the Country Gentleman will be thankfully received. L. C. W. *Granville, N. Y. Sept.* 15th. 1855. Is it not the hoof ail?

To Prevent Wheat from Sprouting.

To give a remedy after the damage is done, may remind our readers of the old proverb, "after the steed is stolen, shut the stable door" But, as a shrewd old friend sometimes remarks, "the best way is as good as any,"—a practice which will insure the grain crop from injury in wet seasons, and be wholly unobjectionable at other times, is worthy of adoption.

We have taken some pains to ascertain by experiment the precise time of cutting when the wheat crop affords the largest yield; and this we find to be when the chaff has become about one-half or two-thirds yellow, —green streaks running through it—a few days earlier is better than too late. We have recommended this practice to our readers, and also to our neighbors, and many have adopted it. A good farmer and careful observer informs us that he cut a part of his wheat this year while in this condition, and put it up in capped shocks, well known to many farmers, and represented in the annexed figure. It remained during the long period of heavy rains which followed, dried thoroughly during this time, and came out as bright and as fresh as in any year; while all the rest, cut at the usual time, was badly sprouted. The contrast was remarkable.



We saw large fields the present year that were quite ripe enough to cut, before the rains commenced, and regretted at the time the risk from delay that the owners were incurring, but did not dream of so disastrous a result.

Now if the practice of cutting early and shocking securely, is as good in any season, and better in wet ones, why not adopt it generally? Let our readers make a memorandum of this matter in their minds, for another year.

Oneida County Fair.

We are indebted to our correspondent, CIVIS, for an account of this Fair, which was held at Rome last week. Owing to the space occupied by the report of the State Fair, we are obliged to confine ourselves to a brief abstract of Civis' letter. The exhibition was in most respects good—the attendance large, and, as a whole, worthy of old Oneida. The sweepstakes for the best short-horn bull brought out the fine bull "Halton," owned by S. P. CHAPMAN, Esq., of Madison County; and though he had no competitor, the Judges awarded Mr. Chapman the Society's portion ($20,) of the sweepstakes and a Diploma. The annual address, (on the "Cultivation of the *Farmer*,") was by Rev. W. E. KNOX, of Rome, and was full of profitable hints and practical suggestions. Eloquent addresses were also made by Ex-Gov. SEYMOUR and Judge BACON of Utica. Our correspondent concludes as follows:

A Ladies' Riding Match excited much interest, drew together a large concourse of people, and, as an incident of the Fair, was deemed by all a pleasing and taking feature.

The first premium of a Silver Cup, or $15, was won by Miss BARTON, of Marshall, who rode a trotting horse, and rode decidedly *well*. Three other premiums were worthily bestowed.

Rome had an excellent Committee of Arrangements, and every thing was done to make the Society and all visitors satisfied. The receipts were about $1300, and would have been much more, had it not been for rainy weather.

Fish Guano.

EDITORS COUNTRY GENTLEMAN—Noticing an article in your paper on manures, in which you allude to fish manures, I thought you might be interested in learning that an incorporated company were engaged in manufacturing a manure, which they term fish guano. They obtain their fish from Naragansett Bay, and their works are located near Bristol, R. I. The only fish used are the Menhaiden, a fish in appearence bearing quite a resemblance to shad, but small. weighing about one pound. The oil is taken from the fish by cooking with steam, and with some chemical combinations, the remains are converted into two varieties of guano. One kind is prepared somewhat as follows: The remains, after cooking, is a soft mass of flesh and bones, and after being chemically treated and partially dried, it is put into an oven and thoroughly baked, and then ground fine, similar to the specimen which you will receive with this, which, beside the chemical agents combined with it, is simple flesh and bones. This material or preparation, has been analyzed by Dr. Jackson of Boston, and he reports 35 per cent phosphate of lime—43 per cent of animal matter, and 7 per cent of potash; the remaining 15 per cent consists mainly of the added materials. The process necessary for the production of this is of course costly, yet the company have fixed the price lower, some $10 per ton, than Peruvian guano is sold at. From its nature without an analysis, you will be able to see that it must be of great value.

Another, or the other kind, of manure made by the Naragansett Man. Co., avoids the expense of drying, baking and grinding. The fish are all treated chemically alike, but a suitable absorbent is provided, being in itself a valuable manure, but very dry; and with this absorbent, in about equal quantities, the boiled fish is first combined, and then the gelatinous substances, together with the blood boiled from the fish, is added. By their process the bones, flesh, &c., become an assimilated mass, and being rendered partially dry by handling, it is barreled, and sold at a cost of something less than two dollars per bbl. The company expect to have several thousand barrels of this for sale in the spring, as well as some tons of the powdered, both of which they denominate guano.

I think your correspondent OBSERVER, estimates the quantity of oil contained in fish, quite too high. It is very generally conceded that some 80 per cent of the live weight of fish, is water. Oil as a fertilizer, I suppose is comparatively valueless. The flesh and bones of fish are what constitutes the value of fish for fertilizing purposes. S. B. HALLIDAY. *Providence, R. I.*

Answers to Inquiries.

Pears—*W. B., Utica.* We judge both kinds of pears to be the same. The difference is not greater than is often produced by situation, soil, pruning. &c It is the *Summer Rose*, a well known and much esteemed variety on both sides of the Atlantic. You "regard them far superior to the *Bloodgood*, *Dearborn's Seedling*, or any other early variety" you know. It is a good pear, but, as a general thing, hardly entitled to such praise.

Girdled Trees.—One of your lady readers desires information, through the Country Gentleman, whether a tree that has been *girdled* can be restored, and what process would you recommend, or is there no cure Grace.

Trees girdled in winter, may be saved by connecting the bark above and the bark below by means of portions of the limbs, carefully set in so as to form accurately-fitting joints at the points of junction, like those made in grafting, being careful that a portion of the part between bark and wood coincides in both. The newly forming wood. descending through the inner bark of these connecting portions, deposits a new layer, and if several pieces are set around, the old denuded trunk is covered in a few years.

We can only recommend this process for trees of considerable size and value, as an hour or two of careful labor is required to operate properly on a tree in this way. Small ones are most easily replaced with new trees.

Spanish Chestnut.—A subscriber would like to know of you or your correspondents, whether the French or Spanish Chestnut has been cultivated in this country, and if so. with what success as a nut bearing tree? D A. *Washington City.*

We have never seen many experiments with the large Spanish Chestnut. of which there are several varieties—the seasons of central New-York apppear to be too short for ripening the nuts—doubtless they would succeed well at Washington. Will such of our correspondents as may have had experience, please give us the results of their trials.

Orchand Grass and Rye Grass—What is the difference between orchard grass and rye grass. Which is best adapted for cultivation in North Western New York? Where can seed be had? When sowed? Please state also how the ground should be prepared, etc Any other information on this point, will oblige yours truly, A Friend of Progress.

Will some of our readers who have experience with these grasses, answer the above inquiries.

To Destroy Moles.—Can you or any of the many readers to your valuable paper, inform me through its columns the best mode of destroying moles? Having been troubled with them for several years past, and having tried almost everything, but without effect. Any information will be thankfully received. H. E. L. *New-York.*

Moles are sometimes poisoned, and we have seen them caught with a common steel trap. In England they are caught with an old fashioned, simple trap which proves very effective. It is a flat board about 5 inches long, and 4 inches wide, with a hole in the center. At each end five holes are bored and a piece of wood bent in a half circle somewhat larger than the body of the mole, is fastened into them. These bent twigs or pieces of wood are grooved out, so as to hold a string of horse hair, which is run through the hole in the center and attached to a spring made by bending a stick three a four feet long. The trap is set in the burrows, the soil being carefully removed, and a sod placed on the trap to exclude the light and to make the burrow look as though it had not been disturbed. The horse hair attached to the spring is held by a triangular peg in the center hole and extending into the burrow. As the mole passes through, he knocks out this peg and is caught round the body by the hair and instantly killed.

Catching moles is a business in many parts of England. The "mole catcher" agreeing to keep down the moles in his district at so much a farm. Probably many of our readers know of an easy method of destroying moles. If so we should be glad to hear from them.

The Rothamsted Experiments.—Will you do me the favor to inform me whether the reports of the experiments and researches of Messrs Lawes & Gilbert, at Rothamsted, are to be found elsewhere than in the Journal of the Royal Ag Society; and if not, what are the means and expense of obtaining them there. It seems to me that if they were published in a form that would be generally accessible and not expensive, they would be much sought for by intelligent farmers, and might be very useful to them. Agriculture is emphatically an experimental art, and I think there can be no better means of rapidly improving it than systematic and well directed experiments, carefully made, and their results placed before the public W. A. Collins. *York, Livingston Co., N. Y.*

Mr. Lawes' papers are to be found nowhere except in the Journals of the Royal Agricultural Society, and in the Reports of the British Association for the advancement of Science, and in the Gardener's Chronicle and Agricultural Gazette. We trust that Mr. Lawes will be induced to republish them in a separate work, but he is at present so much occupied with the experiments that he is unable to bestow that time in preparing his results for the press which the importance of the subject demands. One tenth part of the results of his twelve years experiments, have not yet been published at all.

Agricultural School.—I have a son who is desirous of attending an agricultural school. Will you be kind enough through your paper or by letter, to mention the best agricultural school, or send me a catalogue, and greatly oblige Your Subscriber

We are sorry to say that at present we know of no good agricultural school to recommend to you.

Mules.—*P. B., Goshen, N. Y.* You can get such a pair of mules as you want, of E. B. Bishop & Sons, Jersey City, or J. Buckalew, Jamesburgh, N. J. The price varies, according to quality, from $200 to $600, and over. Those having mules for sale, would do well to advertise them in this paper.

Underdraining with Pine Plank—I desire to underdrain with sections of inch plank, 16 feet long nailed edge and edge together, forming a triangular trough; the trough to be placed inverted in the bottom of the ditch; the ditch then to be filled up with heart pine plank Will this be a lasting drain? Will it be economical? Will it be practible? Information will much oblige. Jno. McReed. *Girard, Ala.*

Will some of our readers give their experience.

Culture of the Cranberry.—Will you inform me of the proper time for transplanting the low bush cranberry—if they can be propagated by buying the vines the same as grapes, &c. Please answer soon and oblige F. D. C. *Charlton, Sara. Co.*

Will some of our correspondents who have had experience and success in the cultivation of the cranberry, please furnish us the desired information.

Warts on Horses—Can you or any your many subscribers or correspondents supply a remedy for "*warts*" on horses? If so you or they, would be. in this quarter of the world, hailed as public benefactors by giving publicity to it, many valuable animals being greatly afflicted with them here. I am induced to trouble you from the fact of being a subscriber to both your valuable productions, the Country Gentleman and Cultivator, for the last three years, during al. which time I have looked anxiously though in vain for the much needed information. I have a very fine mare from which I should like to rear a colt or two, but fear to try it lest her progeny should be similarly afflicted, almost covered with them. Can you say whether it would be likely to be so or not? Any information on the matter, particularly if attended with a sure and speedy cure, would be a charity conferred on the suffering creature, and a relief to many persons in the neighborhood. T. N. SMITH. *Quebec.*

PEOPLE'S COLLEGE.—I would also ask you to give me some information through the medium of your Country Gentleman, about the People's College—where located—its terms—address of officers, and whether Agriculture is taught as a science. J. B. S.

The People's College is yet in embryo. It has a corporate existence, but is yet without a local habitation. It is intended, we believe, that agriculture shall form one of the principal branches taught, when it goes into operation.

GRAFTING.—Will you please inform me through your journal the proper mode of grafting fruit trees, with the method of preparing the wax. P. W. H.

For twenty-five cents you can procure the *Illustrated Annual Register for* 1855, which will furnish you every necessary instruction in relation to grafting and grafting wax, together with directions for the cultivation and management of all kinds of fruit trees; and the same work for 1856, will supply you a complete descriptive list of all the best fruits of the different varieties, beside a large amount of valuable information on a great variety of other subjects.

FRUIT SEEDS.—Can you tell me where I can procure a bushel each of apple, pear, quince and cherry seeds. O. A. *Juda, Wis.* [We presume they can be had of the nurserymen at Syracuse and Rochester.]

MT. AIRY AGRICULTURAL INSTITUTE. *B. T. R.*—This school has ceased. We know of no such school as you inquire for.

H. E. R.—We should not expect much manurial effect, on any land, from the burnt sand to be obtained from iron founderies? Why should it be more valuable than the same sand before it has been burnt. Perhaps the oxide of iron, from the castings, which adheres to it, might prove beneficial. Try a little and report the result.

BROOM-CORN SEED.—Will some one of experience inform a correspondent "how seed is usually cleaned from broom-corn."

CLAY PAINT.—I saw in your last number, a recommendation of the use of clay as a paint. Please inform a subscriber, through your paper, how many coats of the paint are required to make a good finish—whether the paint is durable, and whether there is any danger of the coat (if thick) scaling off from the wood? C. Will "A. B." answer the above inquiries?

Cure for Bots in Horses.

I noticed some time since that a subscriber of *The Cultivator*, wished to learn how to cure bots in horses. Having a valuable receipt, from an old farmer out west, I thought I would send it to you, for the benefit of yourself and correspondents. It not only cures, but acts as a preventive, and keeps them in perfect health. I give it to my horses every spring and autumn, as you will see below:

RECIPE.—Powdered rosin, ½ lb.
Saltpetre, ½ lb.
Sub. Sulphur, ½ lb.
Glauber salts, ½ lb.
Antimony, ½ lb.
Assafœtida, 4 ounces.
Copperas, ½ lb.
Alum, 4 ounces.
Bay berries, 4 ounces.

Powder each of these ingredients separately, and then mix them. *Dose*—a tablespoonful morning and evening, mixed in the feed, to be given every day for two weeks, in the spring and autumn. J. F. D. L. *Greensborough, Md.*

Provincial Fair of Canada West.

The Annual Fair of the Provincial Agricultural Association of Upper Canada came off last week and was highly successful, although owing to unfavorable weather on the "shilling days" the attendance was not quite as large as usual. In the stock department, the show has never been excelled on this side of the Atlantic. Our Canadian friends are careful breeders, and they have latterly made some judicious importations, so that the general character of their animals visibly improves at each succeeding exhibition. In Short-horns the show was particularly fine. Ralph Wade Jr. of Cobourg, exhibited 21 head of thorough-breds and 12 head of grades. His recently imported two year old bull has some fine points, but he is not quite equal to what we had expected. John Wade of Port Hope showed a fine lot of Short-horns in excellent condition. Jno. Walton of Peterboro, exhibited a fine 4 year old bull and other first rate shorthorns. Mr. Stone of Guelph, showed several head, some of which were recently imported. They are beautiful animals. Geo. Roddick of Cobourg, and many others exhibited good short horns.

The show of Devons was we should judge, not so large as that of the Durhams, but in quality it was at least equal, if not superior. W. H. Lock of St. Thomas showed 21 head, several of them imported, and all exceedingly good. They are mostly from the herds of James Quartly, and Francis Marson. R. Ferrie of Doon, James Woolener of Simcoe, Daniel Tye of Wilmot, and many others exhibited very good Devons.

Ayrshires were well represented. R. L. Dennison of Toronto, and Baron de Longueuil of Kingston, exhibited superior animals. Mrs. Ewart of Dundas, showed 14 head. John Boys of Amherst Island, B. R. Wright of Cobourg, and Thomas Dawes of Lachine, C. E. also showed good Ayrshires. We are pleased to see this beautiful and useful breed of cattle so well appreciated in Canada.

Herefords are not popular in Canada; Wm. Mc Micken, of Stamford, and Baron de Longueuil, we believe, were the only exhibitors. The animals shown are good specimens of the breed.

Superior Galloways were shown by Wm. Roddick, of Somerville, and by Geo. Miller, of Markham. We were glad to find such good specimens of this hardy and useful breed in Canada. We believe there are a few West Highland Cattle in the Province, but none were exhibited. We saw no Alderneys.

The show of grades was not large, but there were some very fine animals amongst them, the Durhams being evidently the favorite breed for crossing. Except thoroughbreds, there were very few milch cows on the ground, and none of any great merit. Working cattle, ditto.

There was a very fair show of horses, especially of the Clydes and other heavy breeds. Well matched carriage horses, here as elsewhere, were few and far between. The plow teams, or horses for all heavy work, were very fine; nearly all of them possessing more or less of the Clyde blood. In farm horses the Canadians are altogether ahead of the American farmers. We saw no Norman or Lower Canadian horses exhibited. On the whole, although the show of horses was very good, it was hardly quite equal to that at Hamilton in 1853, or even to that at London last year.

There was a fine show of Longwooled sheep, the large Leicesters predominating. The Messrs. Millers of Markham, were the largest exhibitors and their sheep are truly magnificent. Many of them are of recent importation Their immense size, the character of the wool and the general appearanc of the sheep would indicate that they are not pure bred Leicesters. They have probably a dash of Cotswold or Teeswater blood in them. Whether this be so or not, they are remarkable sheep, and deservedly popular in Canada. Are they not "*Scotch* Leicesters," and should they be allowed to compete with the English Leicesters which are little more than half the size? R. & W. Gordon of Paris, exhibited five beautiful ewes, recently imported. They are directly or indirectly, we forget which, from the celebrated flock of Mr. Sandy of Nottinghamshire. Christopher Walker of London, also showed a superior imported ram and 4 ewes. John Dodds of Montreal, R. Wade Jr. of Cobourg, and many others, whose names we did not learn, showed good Leicesters—the large or Scotch variety predominating.

The show of South Downs was not large but their is a marked improvement in the character of the sheep as compared with former exhibitions. R. & W. Gorden of Paris showed a pen of the most perfect animals we have seen for sometime. His yearling ram, got by L. G Morris' celebrated buck "Young York," is a model of symmetry and beauty. Mr. Spencer of Whitby, was one of the most prominent exhibitors of South Downs He has recently imported largely from the flocks of Jonas Webb and the Duke of Richmond, and showed quite a number of very superior sheep. Arnold Burrows of Paris, and many others exhibited good South Downs. Mr. Parsons of Riga, N. Y., was the only exhibitor from this side.

Cotswolds were exhibited by Mr. Stone of Guelph, by the Messrs. Miller, and others. The sheep shown by Mr. Stone are very superior, and we believe are but of recent importation. Are they Cotswolds or New Oxfordshire ?

The show of pigs was not as large or as good as at some previous fairs. Geo. McKinley of Travalgar exhibited a Yorkshire boar which was said to weigh upwards of a 1000 lbs. He was 7 feet 3 inches in length and 5 feet 10 inches girth. James Young of Georgetown, also showed a superior boar of this breed C. A. Jordison of Port Hope exhibited some imported Yorkshire pigs of less size and finer breed which attracted some attention. There were several good pigs shown, a cross between the Leicester and Yorkshire. There were some fair Berkshires shown, and a few good Suffolks, but nothing of any great merit. The small breeds do not appear to be favorites in Canada.

Poultry show poor, and attracted little attention

There was a good exhibition of Agricultural Implements, &c., and we several times heard the remark: "What a number of Reaping and Mowing Machines there are on the ground!" Many of these were made in the Province, but a good portion came from the "States." Few things on exhibition attracted more attention. J. Rapalje & Co. of Rochester, N. Y., and Port Hope, made the greatest display, We noticed in their collection an iron Clod Crusher, somewhat of the nature of Crosskill's Clod Crusher, an English implement which we have repeatedly recommended to our readers. It is manufactured by Mr. Williams of Henrietta, N. Y.

We heard several old farmers laughing at the Yankee plows on exhibition. We know that to one accustomed to the heavy, iron, long-tailed British plows, their appearance at first sight is not prepossessing. But we can assure our Canadian friends that they are "better than they look," and that they really make good work. They may not turn so smooth and neat a furrow as the Scotch or English plows, but they break up and pulverize the soil, and leave a good seed bed. Try them.

A Post-hole Borer worked by horse power was on exhibition, but we did not see it work. We judge, however, that it is a good machine. It is the invention of Jno. Wade, of Cobourg.

Charnock's Brick and Tile Machine manufactured by B F. Smith of Hamilton was on exhibition. Had it been at work, as is generally the case at the English Fairs, we could have formed a more definite opinion of its merits It is probably an excellent machine, perhaps, as is claimed, by far the best yet invented.

"Samuelson's Patent Double Acting Gardner's Turnip Cutting Machine," imported from England, we believe, by one of the County Agricultural Societies, was on exhibition. We have had some experience in its use and prefer it to any other we have seen. We would recommend it to the attention of our agricultural implement makers.

The show of fruits and flowers was very meagre,—far inferior to either the London or Hamilton Fairs. Judge Campbell of Niagara, showed some uncommonly fine Steven's Genesee pears. Apples were generally good, Northern Spy, quite superior. The Pomme de Neige or Snow apple was in every collection and in all cases excellent. Alexanders, about half the size as some of those exhibited at Albany County Fair. Kentish Fillbasket remarkably large and well grown. We saw but three varieties of plums on exhibition. Coes Golden Drop very fine. The exhibitor says the curculio has not yet visited him.

One of the best features of the Fair was the display of grain and vegetables The turnips, ruta bagas, mangolds, beets and carrots compared favorably with the best we have seen at the great English fairs—and that is saying a good deal. Baron de Longueuil showed a sugar beet weighing when pulled 35 lbs. The Baron asks: "Would it not be advantageous to sow them in the autumn." Better Savory Cabbages and Cauliflowers we have never seen. Potatoes good. Many of the varieties showed symptoms of the rot. The Cumberland Kidney variety took the first prize. Four sorts of potatoes grown on the Experimental Farm University Grounds, Toronto, from seed imported from England, were quite small. We understand from Prof. Buckland that last year they were even still smaller. If they keep on increasing every year, they may by and by prove useful. The Mexican potato was for many years so small as to be considered worthy of cultivation only as a curiosity. As a general thing, we believe, potatoes imported from England are comparatively worthless in this climate.

There was a good show of Wheat. Some bluestem shown by Isaac Anderson of West Flamborough, was said to weigh 67 lbs. per bushel. It was a beautiful wheat, and certainly would weigh 64 or 65 lbs. per bushel, and that is what we call good wheat, this season .Oats, barley, clover and timothy seed, of medium quality only. There were a few lots of Tares or Vetches on exhibition, which were very good. Will some of our Canadian correspondents inform us whether this favorite crop for soiling purposes in England, is suitable to this climate ?

We did not see a good cheese on exhibition, except some Stilson made by Ralph Wade, Jr., of Cobourg, which was excellent.

We cannot close without acknowledging our indebtedness to the Secretary, Prof. Buckland, to the President, the Hon. Mr. Christie, to the General Superintendent of the grounds, Mr. Jno. Wade, to Col. Marks, and several other gentlemen, for the many courtesies and kind attentions received.

The editor of the *Ohio Farmer* mentions as having seen at Cincinnati, Duchesse D'Angouleme pears that would weigh over a pound on trees only two years old from the bud.

Breaking Steers.

Messrs. Editors—I notice an inquiry in the Country Gentleman, about *breaking* or *training* steers. Our practice is to prepare a yard about two rods in diameter—the best form is an octagon in shape—so high and strong that they cannot get out of it, and a whip made of a light stick about eight feet long, that will spring easily, with a lash upon it; the lash should be about eighteen inches long, nicely braided, and as hard as it can be braided, so that it will bend regularly. With this the operator should be able to strike to an inch. These are all the fixtures necessary to train steers, however wild. Turn the steers into the yard and commence caressing them. The pockets of the operator should be well supplied with potatoes, roots, corn on the cob, &c; the whip should be kept out of sight, and caressing continued until all signs of fear disappear and they will eat freely from the hand. The whip may now be taken and laid over the neck of one at a time, so that the lash may hang on the right side of the head, and swing gently against the right side of the nose, every touch being accompanied with the word "Haw," in a uniform, mild, low tone of voice, and continued, never leaving the animal, or taking the whip away from him till he will turn toward you by the motion of the whip and word without touching him, and will stop at the word, "Whoe."

Both will learn this first lesson in a period of time, varying from one to four hours. Feeding from the hand, should precede and follow each lesson. On a following day they should be turned into the yard as at first, and the first lesson briefly reviewed; the operator invariably securing complete subjection, without harshness or severity.

The more reasonable, uniform, and mild the operator is, the better he will succeed; the review should not occupy more than five minutes. Then the yoke may be taken in one hand, and carried carefully about them, with the whip always in the other; this should continue as long as they show fear for the new object.

Then hang the bows upon their necks; accustom them to the noise of the rings, &c., (never frightening them;) continue caressing them till they are yoked. When yoked, turn them around, as at first, repeatedly; unyoke them and yoke the near one on the off side; by this time they will be perfectly gentle, chew their cuds, &c.

They are now broken to drive and yoke, and if rightly managed will be as submissive in the open field as in the yard.

The third lesson is, to learn them to draw. This may be done by attaching a chain to the ring of the yoke, and learn them to draw it and turn gently either way. A small weight may then be fastened to the chain, and finally a sleigh or wagon with no load; never suffer them to draw at a load heavier than one can draw with perfect ease until they are thoroughly acquainted with work. It is an advantage to learn them to work on either side. We have frequently broken steers in six hours, viz., three days of two hours each, and they invariably make kind, gentle, and *very active cattle* This method cultivates good-nature in the animals, and preserves their life and spirits. *Warren, Herkimer Co., N. Y.*

Best Time for Cutting Willows.

Mr L. Tucker—In the Country Gent. of the 27th ult., the inquiry is made—"When is the best time to cut Osiers?" It has been supposed that the fall was the best time, but "experience" has convinced me that March or April is the best time to cut for manufacture or cuttings.

Osiers cut in the fall, and put into a cellar, as recommended by Downing, are liable to become dry; and when used for cuttings one-third of them will not germinate. When cut in spring they will give a better growth, and when used for manufacturing will peel better. The great drawback to the culture of the willow, has been the labor of peeling. There is reason to believe that this will be obviated by the invention of Mr. Colby, of Jonesville, Vt., who has a machine, which, he says, will peel two or three tons per day. It is my intention to go and see it in operation, after which you shall hear from me again. John H. Corning. *Valatie, Oct.* 1, 1855.

Bread and Yeast.

I believe no one has answered the question—"how to make good bread from grown wheat."

I have thought scalding the flour an improvement. Take as much boiling water as is needed to wet up a baking of bread, pour it on the flour, stirring at the same time with a pudding stick—have it as thick as you can stir it. Do not take too much water, as it thins so much in rising, you may get too large a baking. It will look rather lumpy and unpromising, but it will *work right.* When cool enough, add yeast When light, make in a stiff dough, and set to rise. When this is light, mould into stiff loaves, and let them rise again. Bread made of grown wheat should not be eaten before the second day.

Excellent Yeast that always has the "good luck" to rise. Peal and boil a dozen or two potatoes—mash—add the water in which they were boiled, and flour to make a thick batter, and a cup of sugar. When cool enough, stir in some *sweet* lively yeast. If the cup of yeast you set it with, is not perfectly sweet, you had better stir in it a small lump of soda before you add it, so that you will not be obliged to use a spoonful at every baking. As soon as the yeast seems light, set it away in a cool place, and stir it down if inclined to run over. This yeast is preferred by dyspeptics, to whom the faintest flavor of hops is discernible and distressing. Elsie. *Waukesha, Wis.*

Messrs Editors—I send you the following receipe for making bread from flour of grown wheat: Mix with the dough of three or four large loaves, about half a gill of whiskey, and the bread will be light Let those who dislike to use whiskey, mix a small lump of butter or lard with the dough. My wife, who is an enemy of whiskey, uses the latter remedy, and we generally have light bread, although our wheat was grown, in common with our neighbors'. S. B. Buckley.

Notes for the Month.

Death of Prof. Johnston.—The last arrival brings us the intelligence of the death of Prof. **James F. W. Johnston**, which occurred at Durham, England, on the 18th of September, at the age of 59. No man has done more than Prof. J. to render the great principles of science as applied to agriculture, clear and intelligible to the common reader; and he merits the lasting gratitude of both British and American farmers, for, we presume, his works have been quite as extensively read in this country as in Great Britain.

An Omission.—In our account of the Ohio State Fair, we fear we have entirely omitted to mention the address of Dr. **Kennicott**, delivered on Thursday afternoon in the Floral tent. Those who heard him spoke of it in the highest terms; but owing to some misunderstanding or mal-arrangement, previous notice was not given of the time and place, when and where, and we, and many others, who like ourselves were anxious to constitute a portion of his audience, had no opportunity of enjoying this privilege. We are happy to learn that the Dr.'s address will appear in full in the Society's report.

Virgalieu Pears.—We are indebted to Messrs. **Ellwanger & Barry**, Rochester, for a box of Virgalieu Pears. They are beautiful samples of this old and excellent pear—far superior in size and perfection of growth to any we have seen for years. Indeed some of our friends, to whom we submitted them, were very much inclined to doubt, from their large size and beauty, whether they could be genuine Virgalieus.

Pears.—Mr. **Dorr** of this city has presented us with samples of white Doyenne, Surpasse Virgalieu, and Doyenne Boussock pears, from his garden—the latter, one of remarkable size and beauty. It measured 10½ inches in circumference. The Doyenne was much smaller than samples we happened to have from Western New-York, but in quality was decided to be much superior by several, who had an opportunity of testing them. We are also indebted to Mr. **Dorr** for samples of the Madison Plum, an excellent late variety described by him in the Country Gentleman, vol. 4, page 362.

Large Peaches.—We had on exhibition in our office last week, an Ohio Peach—one of a couple of dozen sent by S. **Witt**, Esq., of Cleveland, to a friend of his in this city—which measured 11½ inches in circumference, and weighed twelve ounces. The whole lot were about the same size—one a trifle heavier, weighing 13 ounces. They were "Crawford's Late," and believed to be the largest ever seen here.

Burgundy Grape.—Mr. A. B. Marvin, Brewster Station, Putnam Co. N. Y., has shown us a few bunches of a grape which, in conjunction with about fifty other varieties, he imported from France two years ago. This is the only one that proves valuable. It is hardy, productive, of good flavor and ripens early. It is doubtless the Burgundy grape. Mr. M. thinks it will be an excellent grape for wine making purposes in the northern and eastern states.

American Short Horn Herd Book.—As we were closing up the paper, we received from **Lewis F. Allen**, Esq., the second volume of his American Herd Book. It is a handsomely executed work of 650 pages, containing 2700 full pedigrees, besides the produce of cows which are registered, and upwards of 50 portraits of living animals. Price to subscribers $5.—to non-subscribers $6. If to be sent by mail, 45 cents must be added to prepay postage.

The Vermont State Fair was held at Rutland last week, and we were greatly disappointed in finding ourself unable to attend it, as we had intended. We learn that the exhibition was very successful, the show, particularly of cattle, sheep and Morgan horses, being good, and the attendance large.

Provincial Fair of Lower Canada.—The third annual Fair of the Agricultural Association of Canada East, held at Sherbrooke, was well attended and every way successful. The Governor General, Sir E. W. **Head**, Lady **Head** and other distinguished ladies and gentlemen were present, and our loyal Canadian friends seem to have had a general good time. We have not yet received the premium list, but Col. **Stevens** of Dunham, it is said took the first premium for Durham bulls in the first class, and Mr. Benton of Stanstead in the second class. Col. S. **Baker**, took the first prize for Durham cows, and Mr. James Logan of Montreal for Ayrshire. The show of horses was large and excellent. Few sheep and swine were shown, and the same is true of poultry.

Brookfield Town Fair.—We have received an account of the 6th annual Fair of the Brookfield (Madison Co.) Ag. Society, which was held Sept. 19 and 20, under the most favorable circumstances. The exhibition we should judge, was equal to that of very many county societies. The attendance was large, embracing nearly the entire population of the town, as well as many from the surrounding towns. The prizes were so arranged as to draw out samples of nearly all the products, in-door and out, of the town; and the number of premiums awarded amounted about 230. We wish there were many more such societies. It does indeed, in the words of the report, "give evidence that there is honor, wealth and dignity in labor."

Reapers at Paris.—A Paris correspondent of the New York Daily Times, says—"**Manny's** Reaping Machine has been sold to Prince Napoleon, and the patent for France has been disposed of to a company. I am forbidden to mention the sum. **McCormick's** is not yet sold. These admirable inventions will, perhaps, obtain less success in France than in other countries, from the circumstances of the extreme subdivision of the land. A man owning a lot measuring half an acre would not buy a machine for reaping the wheat or mowing the clover it may produce. The large farmers of the grand agricultural districts, however, cannot henceforward do without them. The press has given due importance to the experiments at Trappes, of which I wrote you last week; and has chronicled the brilliant success of the American machines of MANNY, MCCORMICK, WRIGHT and PITTS."

EXTRAORDINARY WAEAT CROP.—The San Jose Telegraph says that Michael Marshall, living near Reed's Mills, adjoining San Jose, raised 87 bushels of wheat to the acre. Another California paper mentions another wheat crop in that state, which, on the whole crop, averaged over 60 bushels to the acre, the present season.

FALL PLOWING SHOULD BE DONE EARLY.—The *Boston Cultivator* well says: "Plowing, both for winter grain and for the purpose of rotting the sward before next spring, should be done as soon as practicable If delayed till the warm weather is past, little or no decomposition will take place, but the vegetable matter will lie inert till spring, and the furrow then be tough and the grass likely to start from it. The sward would rot more in one month before the middle of October, than it would from that time to May. Many farmers often lose the great object they desire to accomplish by fall plowing, on account of overlooking this fact"

On the other hand, the *Cultivator* thinks that "if it is desired to mellow and sweeten a stiff clay, the later it is plowed the better, in order that the frost may act upon it at once before it is soaked by rain."

BEES AND HONEY.—I am doing something in raising honey, and should like to have you tell all you know about the management of bees. I have been experimenting with them a number of years, and think I have succeeded in doing as well, if not better, than any other man in this state, with the same number of swarms. Last year I took twelve hundred pounds of nice table box-honey from twenty-five swarms. If any one has got as much or more, according to the number of swarms, I should like to know it, and would try to learn something about it. LUCIUS BISHOP. *New Russia, N. Y.*

S. M. Bassett's

MERCANTILE COLLEGE

Tucker's Block, Fulton, Oswego Co. N. Y.

OPEN to both Ladies and Gentlemen, affording unequaled facilities for acquiring a business education.

FACULTY:

S. M. BASSETT Principal, Prof. of the Science of Accounts, Practical and Ornamental Penmanship.

A. P. FRENCH, Assistant Prof. in the Book Keeping Department.

Hon Judge TYLER and S. H. CLOUGH, Esq., Lecturers on Commerce and Common Law.

Rev. T. M. BISHOP, Lecturer on Political Economy and Com. Geography.

The Collegiate course will embrace the most approved and practical forms for keeping Books by Double Entry in the various departments of Trade and Commerce, including general Wholesale, Retail, Commission, Exchange, Banking, Manufacturing, Printing, Shipping, Steamboating, Individual Partnership, Compound Co Business, Commercial Penmanship, Correspondence, Computations and Lectures on every subject of importance connected with the interest of the business world.

Gentlemen and Ladies can enter College at any time (as there is no class system) and receive individual instruction.

For particulars send for a circular.

Sept. 27—w2tm1t

HAY PRESSES.

HAY PRESS, to press bales of 150 lbs. to 225 lbs—Price $40. Hay Press to press bales of 200 lbs. to 250 lbs.—Price $75.

The above presses are well worthy the attention of farmers. For sale at the North River Agricultural Warehouse.

GRIFFING & BRO.,
60 Cortlandt-St., New-York.

Sept. 27—w&m3m

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1. with Government weight and brand upon each bag. Price $50 per ton of 2000 lbs.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag. Price $43 per ton of 2000 lbs.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure 2 under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
New-York.

Oct. 11—mtf

TO NURSERYMEN.

THE subscriber, at Bangor, Maine, continues to furnish NATIVE EVERGREEN TREES, to dealers, at the owest prices for cash—among which are Silver Fir, Double Spruce, White Pine, White Hemlock, Larch or Juniper, American Arbor Vitæ for Hedges, &c.

Priced Catalogues sent to applicants, and correspondence solicited. October and November are favorable months for shipping and transplanting west and south of the Hudson river, and in the fall advantage can be taken by sending in sailing vessels at low freight.

Oct. 4—w1tm1t WM. MANN.

Northern Muscadine Grape.

THE undersigned would inform the public, that after having had 25 years experience with more than 40 varieties of Grape, said to be adapted to this climate, they have never been able to find any that at all compare with the *Early Northern Muscadine*, either in point of flavor for the table, or for producing the richest of Wine—said by some of the best French judges to be the best Wine Grape they have ever seen in North America—its early habit of ripening, being on an average for 14 years past, from three to four weeks earlier than the Isabella, and pronounced by thousands who have eaten the fruit in our gardens, quite superior to that far-famed grape. As far North as our Society is located, the Muscadine, for fourteen years past, in point of profit, has yielded us 15 dollars, where the Isabella or any other kind of grape has yielded us one.

As we are in the business of producing new varieties of Grape, we are not afraid to challenge any of the Northern States to produce its equal: for we have impartially tried all the new varieties, and have in reality found NOTHING that compares with it.

This is an entirely new variety known as the Northern Muscadine or Shaker Seedling. It was produced in the Society of Shakers at New-Lebanon, Columbia Co., and State of New-York, and has been and still is with them a Standard Grape, that does obeisance to no other grape yet known as a hardy grape in these Northern States. This remarkably fine and high-flavored Grape was produced from the seed of the Native White Grape, growing wild on the banks of Connecticut River. Having proved it for 15 years past, in almost every situation, we can, with the greatest confidence, recommend it to the public as the very best, in every point considered, of any grape yet known in this Northern latitude; for we have intended to thoroughly prove the whole list of hardy grapes that were noted for their goodness, and then recommend truthfully according to the result of our experience. And as the public are now being most shamefully imposed on, by unprincipled persons selling grape roots that are worthless and good for nothing, under this name, Muscadine, we would caution all to beware of whom they purchase roots bearing the above name, as we will hold ourselves responsible for the genuineness of none but such as are ordered to our personal address, or of such of our agents as can show proper reference that we have duly appointed them. We have now on hand a choice supply of Roots ready for this fall's setting. October and November are suitable for this purpose.

Principal Agents, { D. J. HAWKINS,
R. F. CROSSMAN,
Shaker Village, New-Lebanon,
Columbia Co., N Y.

Oct. 11—w3tm1t

Agricultural Books,

For sale at the office of the Country Gentleman

FRUIT TREES

Ornamental Trees, Shrubs, Flowering Plants, &c.

AN extensive and select collection of Fruit Trees, propagated exclusively from *bearing trees of the finest sorts*, is offered for sale at the Nursery of J. J. THOMAS, Macedon, Wayne county, N. Y.

☞ Careful selections will be made by the Proprietor, when desired, embracing a suitable proportion of the best varieties, so as to afford a regular succession of the Finest Fruit through Summer, Autumn and Winter.

Also, for sale, a large collection of the best hardy Ornamental Trees, Shrubs, Flowering Plants, &c., among which are the most brilliant varieties of Roses, the finest Spiræas, Pæonias, Phloxes, &c.

All orders, accompanied with remittances, will be faithfully and promptly attended to, and the Trees and Plants packed in the best manner for safe conveyance by railway.

NURSERY STOCK

Of FRUIT TREES and EVERGREENS,

To be sold by W. THORBURN, J. V. B. TELLER, and Estate of JAMES WILSON deceased:

WHO now offer for sale, in lots to suit purchasers, the entire NURSERY STOCK belonging to the firm. *Great reductions* from the regular prices will be made, as we desire to make as large sales as possible this autumn and next spring, to dealers and others, in order to *settle up entirely the business of the firm.* The stock is as follows:

34,000	Grafted Apple, 5 to 12 feet high, with fine heads.
14,000	Standard Pear, with fine heads, 4 to 10 feet high.
4,000	Plum, 4 to 10 feet high.
1,600	Cherry, 5 to 12 feet high, with fine heads.
2,000	Peach, 1 and 2 years from the bud.
3,000	European Lindens, 2 and 3 years, very fine trees, with fine heads.
3,000	European Mountain Ash, 1 to 3 years.
5,000	Norway Spruce.
1,000	European Larch, 100 Tulip Tree.
150	Laburnum and Balsam Fir.

Also, Pear, Apple, Plum and Cherry Stocks. The Fruit trees embrace all the very best varieties for extensive cultivation, and are of fine, healthy growth.

Personal inspection of the trees at the Nursery, preferred to correspondence. A liberal discount for cash, as it is desirable to sell for *cash*, instead of on credit. Catalogues to be had on application, or by mail, directed to

W. THORBURN, Seedsman, &c.,
Sept. 13—w7tm3t 492 Broadway, Albany.

Maclura or Osage Orange Hedges.

H. W. PITKIN,

Manchester, Conn., Dealer in Seeds and Plants.

IN consequence of the increasing demand for this remarkable Hedge plant, my exclusive attention is now given to the business. Seed is yearly gathered by my own agents, and may be relied upon as fresh and genuine. As many persons prefer the plants ready for setting in hedges, I have established nurseries in different sections of the country, where they are raised on an extensive scale, and in the most economical manner, and am ready to contract them in any quantity. A descriptive pamphlet on the Culture of Osage Orange Hedges, given to purchasers.

G. G. SHEPPARD, New-York—P. B. MINGLE, Philadelphia—BYRAM, PITKIN & CO., Louisville, Ky., wholesale Agents.
Apply as above. April 5—w2m2m

Hay Presses, Hay Presses.

DEDERICK'S PORTABLE PARALLEL LEVER HORIZONTAL AND VERTICAL HAY PRESSES.

THESE Presses are so constructed that they can be taken apart at the manufactory, and (by the printed directions accompanying each press) put together again in a couple of hours by any two farmers, without the aid of a mechanic. They are so conveniently portable that they can be moved from one field or farm to another, as a sleigh is moved, by a pair of horses or oxen, and for convenience and power of operation they are altogether unequalled. They are now being shipped to all parts of the country, and are in every instance giving the most decided satisfaction. With two men and a boy to attend the horse, one of these machines will bale from 6 to 8 tons of hay per day, according to the No. or size of the press. Prices, from $130 to $175. For circular, with full description, apply personally or by mail to the subscribers.

DEERING & DICKSON,
Premium Agricultural Works,
May 10—w&meowtf Albany, N. Y.

LIFE ILLUSTRATED: A First Class Weekly Newspaper, devoted to News, Literature, Science, and the Arts; to ENTERTAINMENT, IMPROVEMENT and PROGRESS. One of the BEST FAMILY NEWSPAPERS IN THE WORLD. TWO DOLLARS a year.

THE WATER CURE JOURNAL: Devoted to Hydropathy, its Philosophy and Practice; to Physiology and Anatomy, with numerous Illustrations; and those Laws which govern Life and Health. $1 a year.

THE PHRENOLOGICAL JOURNAL: Devoted to all those progressive measures for the elevation and improvement of Mankind. $1 a year.

For THREE DOLLARS, in advance, a copy of each of these Journals will be sent one year. Address prepaid,

FOWLER & WELLS,
Sept. 6—w4tm2t No. 308 Broadway, N. Y.

NO. 1 PERUVIAN GUANO.

PERUVIAN GUANO, No. 1—Price $52 per ton of 2000 lbs. This guano we receive direct from the Peruvian government's Agent, with government weight and brand on each bag. Farmers purchasing of us cannot fail to receive the best No. 1 Peruvian. We keep none of the prepared, or No. 2 Guano.

Farmers or dealers wishing to purchase in large quantities, will receive a liberal discount.

BONE DUST, Land Plaster, Poudrette, Superphosphate of Lime, &c., at the North River Agricultural Warehouse.

GRIFFING & BRO.,
Aug 23—w8tm3t 60 Cortlandt-st., New-York.

DE BURG'S NO. 1

Ammoniated Super-Phosphate of Lime.

THE above valuable compound is warranted pure and genuine. The manufacturing department is under the personal direction of the subscriber, and will have studious attention as to his preparation at all times being uniform in its component parts. Many experiments during the past year, with the above brand, in equal quantity with Peruvian Guano and other concentrated Fertilizers, scrupulously testing its value as compared with the latter, by various State Farms, public Agricultural Committees, &c., have been made, showing a preference for it as a manure, both as to early inducement and prolificness of growth. Pamphlets will be sent on application to the subscriber, containing full directions for use, &c.

C. B. DE BURG,
Sole Proprietor and Manufacturer,
June 14—w&mtf. Williamsburg, L. I.

Virginia Land for Sale.

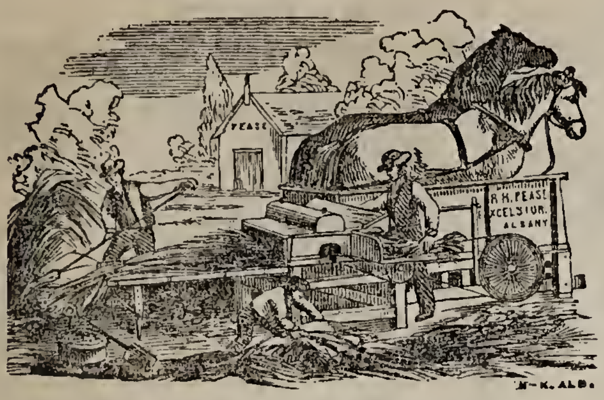
THE subscriber having yet a few Farms for sale from his large and valuable tract of land situated in the county of Fairfax, Virginia, on and near the Turnpike leading from Washington and Georgetown to Leesburgh, 16 miles from the city of Washington, two miles from the Canal, and within 3 miles of the Alexandria, Loudon and Hampshire Rail Road. The soil is of the first quality, of a deep red color, seldom affected by drouths to which most lands are subject. Adapted to grain, plaster, clover, and all kinds of grass. The land will be sold in lots of 100 or 200 acres, or as the purchaser may desire. Every Farm will be well supplied with wood, which consists of oak, chestnut and second growth of pines Persons wishing to purchase would do well to call and examine before purchasing elsewhere. For further particulars, inquire of the subscriber on the premises.

S. S. MILLER,
Aug. 1—m5t Spring-Vale, Fairfax Co, Va.

FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPER & Co., 41 Water St., New-York; Caleb Gasper, Esq., Marcellus, Onondaga Co., Geo Young, Esq., Milo Center, Elias Bently, Esq, Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N. Y., Judge Ellsworth, Pen Yan. March 1—mtf—



Excelsior Agricultural Works.

Warehouse and Seed Store,

No. 369 and 371 Broadway, Albany, N. Y.

THE subscriber is prepared to furnish to order a full assortment of Farm Implements and Machines, adapted to all sections of the country both north and south, among which may be found

The Excelsior Changeable R. R Horse Power.
" " Threshing Machines with Separators.
" " Cider Mill, Krauser's Patent.

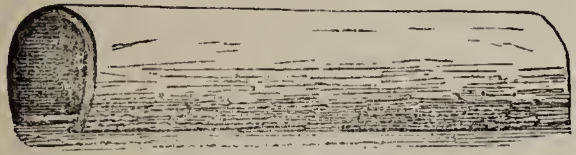
Mowing and Reaping Machines, Grist Mills, Corn Shellers and Clover Hullers; Circular and Cross-cut saw mills adapted to the Horse Power, for cutting fire wood, fence stuff &c. Also a general assortment of Fertilizers.

July 19—w&mtf RICH'D. H. PEASE.

Appleton & Alderson's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

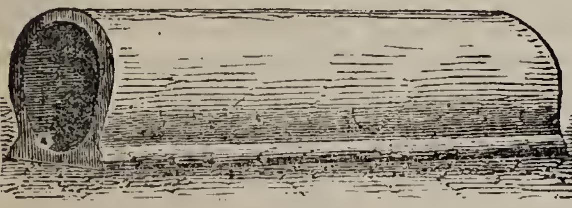
HORSE SHOE TILE, 14 INCHES LONG.



PIECES.

4½ inches calibre,	$18 per 1000.
3½ inches calibre,	15 per 1000.
2½ inches calibre,	12 per 1000.

SOLE TILE. 14 INCHES LONG.



PIECES.

4 inches calibre, at	$40 per 1000.
3 inches calibre, at	18 per 1000.
2 inches calibre, at	12 per 1000.

THE subscribers having enlarged their works, are now prepared to furnish Drain Tile of the various patterns and pieces. Also Large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. We warrant our Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. MERCHANT'S, 71 Quay-st., Albany, near the Steamboat landing.

Full directions for laying Tile will be sent free to those addressing the subscribers.

We only need say that Appleton & Alderson obtained the first prizes for Tile at the Albany County, and N. Y. State Fairs. Practical drainers furnished if required.

Orders from all parts, will be thankfully received and promptly attended to.

Address APPLETON & ALDERSON,
195 Washington-st., Albany, N. Y.
May 31—weow&m5m

HORSE POWERS,

OF the most improved Patents.
THRESHING MACHINES, with Separators,
CIDER MILLS, Hickok patent,
HAY, STRAW, AND STALK CUTTERS,
CORN SHELLERS, CLOVER HULLERS,
DOG POWERS, FANNING MILLS, &c. can be furnished at the North River Agricultural Warehouse.

GRIFFING & BRO.,
Aug. 23—w8tm3t 60 Cortlandt-st., New-York.

THOMAS GOULD,

BREEDER OF

Durham Cattle, Suffolk Swine,
Madagascar or Lop-Eared Rabbits, English Ferrets,
GUINEA PIGS,
Dorking and Brahma Fowls,
AURORA, CAYUGA COUNTY, N. Y.

DOMESTIC ANIMALS

AT PRIVATE SALE.

L. G. MORRIS' ILLUSTRATED CATALOGUE, with prices attached, of Short Horned and Devon Bulls and Bull Calves, a few Horses, South Down Rams, Berkshire, Suffolk and Essex Swine, will be forwarded by mail (if desired,) by addressing L. G. MORRIS, Fordham, Westchester Co., N. Y., or N. J. BECAR, 187 Broadway, New York. It also contains portrait, pedigree, and performances on the turf of the celebrated horse "Monarch," standing this season at the Herdsdale Farm. May 3, 1855—w&mtf

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Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
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A FEW pair fancy Lop-Eared Rabbits at moderate prices, very fine specimens, delivered at Hudson.

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Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane.
Jan. 4—1am—mly. New York City.

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Oct. 18th, 1855—w5tm1t* Plattsburgh, N. Y.

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Oct. 4—w4tm1t

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May 24—m12t*

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10.000 Rivers' New Large Monthly.
10.000 Knevett's Giant.

And a general assortment, including all the valuable varieties, *especially* Brinkle's Orange, the most beautiful and best of all raspberries.

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CURRANTS—A general assortment, including Large Black English, Black Naples, Myatt's Victoria, and Large Red and White Dutch.

RHUBARB—Victoria, Downing's Colossal, Linnæus, Cahoon, and a great variety of seedlings.

STRAWBERRIES—Hovey's Seedling, Boston Pine, Early Scarlet, and McAvoy's Superior.

WILLOW CUTTINGS. C. W. GRANT.
Oct. 11 - w&mtf Newburgh, Orange Co., N. Y.

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LUTHER TUCKER, *Albany, N. Y.*

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES.

Vol. III. ALBANY, DEC., 1855. No. XII.

Arrangements, Hopes and Aims.

The Senior Editor and sole Proprietor of The Cultivator and Country Gentleman, has associated with himself in the Editorial Management of his Journals, and in his business as Publisher, Luther H. Tucker, whose experience in both these departments, for more than a year past, will, it is believed, enable the new firm, Luther Tucker and Son, to give increased energy, interest and value to their several Publications.

The aim of this paper, since its commencement, has not been merely to *compare well* with its contemporaries, but to take advantage of every practicable means to attain that position, in the view of its conductor best qualified to meet the wants of the American Farmer. In reviewing his course, he flatters himself that this end has been sought with at least some measure of success. Taking the foremost rank at the outset, the influence of The Cultivator has been ever since rapidly extending; and it has numbered among its contributors the most distinguished and intelligent agriculturists of our whole country. From the first it has been the depository of a mass of facts in relation to Agriculture not to be found, it is believed, in any other series of volumes; and the favor with which it has been received, and the ample support accorded to it, are, undoubtedly, largely attributable to the practical nature and value of its contents.

In the same aim we purpose to continue it, with the renewed assurance of permanence conveyed in the present arrangements, and the renewed enterprise and determination to excel, conferred by them. It is with the hope of awakening farmers at large to their need of enlightenment; of assisting them in the field and encouraging them at the fireside; of lifting from their shoulders, perhaps, somewhat of the burdens of their life; of creating with them a taste for the knowledge, the comforts, the beauties at their command; of developing among them an appreciation of these and other resources, and a true spirit of advancement, that we shall labor.

—Reader, you have here our whole platform. Will you not assist us in the work?

Such is the *cheapness* merely, of the terms on which we offer The Cultivator and Register to the public, that it would seem as if they *can but* reach that extent of circulation, with the aid of which they can alone be sustained.

If our Agents and Friends will *enlist the co-operation of other subscribers*, the number obtained might be very much increased over that of any previous year. We shall esteem it a favor if they will do this; and should any be unable to head the movement, attend to remittances, &c., themselves, if they would *place the matter in the hands of some competent person* who would feel interested in attending to it.

We shall hope for a circulation in 1856, of Fifty Thousand copies. That there is nothing chimerical in this hope, all will agree who consider for a moment the vast numbers of our farming population, the value and beauty of the paper furnished, and the smallness of the cost exacted.

With this hope we shall labor; to its accomplishment we ask the labors of all who are interested with us in the cause of the Farmer, and in the progress of a real and noble enlightenment, of larger views and higher aims, in that class which constitutes the very foundation of our national structure, and the only security of its well-being.

☞ The particular attention of our friends is requested to the Prospectuses of both The Cultivator and Country Gentleman, forwarded with their last numbers. We have, as promised in the November issue, endeavored to send to those on whom we chiefly depend for sustaining and increasing our circulation, a copy of the Annual Register, for use in canvassing. Some, even of our best Agents, may perchance be accidentally omitted; we trust any of these, or any friend disposed to aid in the cause of American Agriculture and Rural Improvement, will write us for a copy and for specimen numbers, and go to work with them as earnestly as their deserts and his own circumstances will admit. It will be seen that we renew, with the two very important additions mentioned, our last year's offer of

PREMIUMS TO AGENTS.

As an inducement to Agents to exert themselves to form Clubs, aside from the consciousness of the benefit they will confer upon their neighbors by placing such a journal in their hands, we offer the following list of Premiums to those who send us the largest amount of cash subscriptions to our journals for the year 1856, previous to the 10th of April next:

1. For the largest amount,. FIFTY DOLLARS.
2. For the next largest,.... FORTY-FIVE DOLLARS.
3. For the next largest,.... FORTY DOLLARS.
4. For the next largest,.... THIRTY-FIVE DOLL'S.
5. For the next largest,.... THIRTY DOLLARS.
6. For the next largest,.... TWENTY-FIVE DOLL'S.
7. For the next largest,.... TWENTY DOLLARS
8. For the next largest,.... FIFTEEN DOLLARS.
9. For the next largest,.... TEN DOLLARS.
10. For the next largest,.... FIVE DOLLARS.
11. For the TEN next largest Amounts, Each a Bound Set of the Six Quarto Volumes of the Cultivator, from 1838—1843 inclusive.
12. For the TEN next largest Amounts, Each a Volume of the Transactions N. Y. State Ag. Society for 1854.

Agents who compete for the above prizes must, in all cases, remit with their orders, at the rate of Fifty Cents for each copy of The Cultivator, and One Dollar and Fifty Cents—(the lowest club price, where ten or more copies are taken)—for each subscriber to the Country Gentleman.

We ask attention also to the addition of no less than Twenty Prizes to the List as offered last year. These will cover a large number of cases in which nearly equal labor is expended, and which last year received no "material" acknowledgment of their exertions.

☞ One suggestion we ought to make. That *all the labor* of securing clubs ought not to be left with one Agent—but that every one should endeavor to co-operate with him in obtaining and increasing the subscriptions which he bears the trouble and expense of forwarding to us. This will assist both him and us, and will enable ALL to work together in the common cause.

◆

TERMS OF THE CULTIVATOR.

For a Single Copy,........	Fifty Cents.
For Twenty Copies, with Register for 1856 to each,..................	$10.00

TERMS OF THE COUNTRY GENTLEMAN.

One copy, one year,........................	$2.00
Three copies, "	5.00
Five copies, "	8.00
Ten copies, "	15.00

OR FOR SIX MONTHS:

One copy,..................................	$1.00
Six copies,..................................	5.00
Ten copies,..................................	8.00

Subscribers in British Provinces.

We have to pay the United States postage on all papers to the British Provinces; and this we cheerfully do, to all subscribers who pay the single copy price of $2.00 for the Country Gentleman, and Fifty Cents for The Cultivator; but on all clubs, the U. S. postage must be added. Hence our club terms to them for the latter will be—

20 copies and the Register to each,........	11.60
And for the Country Gentleman,	
3 copies....................................	$5.75
10 copies,....................................	17.50

Dating Letters.

☞ It is of the greatest importance, that every person writing us should give his full Post Office address—naming *Post Office*, *County* and *State*—for instance, as follows:

Shutsville, Jefferson Co., Ky., Oct. 1, 1855.

If all our correspondents would thus commence their letters, and be careful to write their names plainly, it would save us much labor and vexation, and secure a prompt and correct fulfilment of their requests.

☞ Great care should be taken to write the name and address of each subscriber distinctly, thus:

"*John Smith,....Lenox,....Berkshire Co.,....Mass.*"

Postage on Our Publications.

On the Cultivator, per year,...............	6 cents.
Country Gentleman, per year,............	26 cents.
except in Albany county, where it is free.	
Illustrated Annual Register, if *prepaid*....	2 cents.
Payable *where delivered*...............	4 cents.

Agents can remit, at *two* cents per copy for the Register, and have the postage paid here, or let the subscribers pay four cents on delivery, as they prefer. The postage on the papers must be paid quarterly in advance, *at the post offices where delivered*.

Register for 1855 or 56.

☞ Gentlemen ordering the Annual Register, are particularly requested to specify the one they want, whether for 1855 or 1856.

◆

A Word on Stabling Cattle and other Animals.

The time has come when old Borees begins to whistle through the lifeless trees, and stern winter is hard upon us; and it becomes farmers to make preparation for stabling their animals. Notwithstanding we live in a day of great improvement in farming, yet many farmers are opposed to stabling their stock, and still continue to throw their fodder into the mud, and at the mercy of the winds; and instead of sheltering their swine, they let them run over their whole farm, rooting up their best meadows, and perhaps their neighbors' also. Every observing farmer knows that it is as natural for cattle to seek a dry and warm shelter, as it is for the human family; yet it appears as if some farmers thought their salvation depended on keeping a large stock, half-fed, half-stabled, half-cared for. No farmer, whose heart is not harder than a mill stone, can enter his dwelling on a cold winter's night, by a good fire, and feast on the luxuries of the earth, while his stock are looing and bleating about the lots and streets for the want of proper food and shelter. Geo. Cargill. *Berkshire, N. Y.*

◆

Shorthorns in Scotland.—The recent annual sale of Shorthorn bull calves at Shethin, 18 animals sold for 773 guineas, or about $215 each. "This," says the *North British Agriculturist*, "is perhaps tho highest average at any sale of bull calves in the north since Shorthorns were introduced."

When to Use Barn-Yard Manure.

Messrs. Editors—If you had a farm of 90 acres, and stock upon it to make about 100 loads of manure per annum, would you apply that made from fall to spring, on your corn, potato or other ground? or would you apply it in the fall on your grass or other ground? Your answer will interest one at least of your readers. H. L. D. *Moreau Station, N. Y.*

In the present state of agricultural science we can give no satisfactory answer to these questions. Indeed, were we better acquainted with the action of fertilizing substances on different crops, it would still be difficult to determine, under the various circumstances of practical agriculture, what particular mode of treating and applying manure would be most advantageous. Had we simply to decide which mode supplied the plants with the greatest amount of manurial elements, we should say, apply the manure in the green or unfermented state, and plow it under as soon as possible, for in this way the manure would decay in the soil, and all the gases evolved be detained. But this, though an important one, is not the only question. The manure in the green state does not act as quickly as when properly fermented in the barn-yard or heap; and much more labor is required to draw it on to the land, spread it and plow it under, than when concentrated by judicious fermentation. We have to decide whether the loss during fermentation is so great as to counterbalance these advantages. As manure is usually managed, there is unquestionably much loss of carbonate of ammonia during fermentation; but this need not be. In a well managed barn-yard or manure heap, the loss of ammonia or of any other valuable substances is much less than many of our agricultural writers appear to suppose. Thaer could not detect the escape of ammonia from his manure heap by the most delicate chemical tests. Dr. Wolff, an able and reliable German chemist, says: "where yard manure and composts are skilfully prepared, the loss of ammonia is very slight, even without the use of fixing agents." From these facts we should conclude that it was better to reduce or concentrate the manure as much as possible by fermentation, before applying it to the land. But here we are met with a question in regard to the mechanical action of barn-yard manure. Yes, manure unquestionably has a beneficial mechanical action on some soils; when plowed under a stiff clay, it doubtless renders it lighter and more porous, and under such circumstances we may conclude that the longer, greener, and more bulky it is, the greater will be its beneficial effect. Even on very light, sandy soils, we are not sure but that under some circumstances manure may be applied with much advantage on the surface as a mulch; and of course the longer and greener it is the better. We believe the loss from the escape of gaseous matter in the gradual decay of green, strawy manure, spread out on the surface of the soil, is much less than is generally imagined. There is unquestionably some loss, but in many cases, we believe the benefit derived from the mulch would more than counterbalance it.

In deciding when and how to apply manure, we must not forget, what is gained by drawing it out at a comparatively leisure season of the year. In this climate, the period allotted the farmer to prepare and sow his land is so short, and labor so much higher than during the winter months, that this consideration is of particular importance.

In England, manure is usually applied to the turnip crop in the spring, or to the wheat crop in the autumn. Since the introduction of superphosphate of lime, guanos and other concentrated fertilizers, the latter course is most frequently adopted by intelligent farmers. Still, there as here, it is one of the "vexed questions" of agriculture. The working season in England is much longer than with us, and yet sometime since we received a letter from one of the best practical farmers of Shropshire—a gentleman who on 268 acres of land kept 33 milch cows, some 20 head of young cattle, 8 horses, 250 sheep, and a large number of hogs, besides having each year, 40 acres of wheat, 40 of barley and 40 to 50 of turnips, potatoes, vetches, &c.—asking our opinion if there would be much loss of ammonia, if he should draw out his manure late in the autumn, and spread it on his wheat stubbles, that were to be sown with turnips the next spring. He found it no easy task to draw out the immense quantity of manure made on the farm in season for either the turnip or wheat crop. The answer given can be of no interest to our readers. We allude to the matter simply to show that, even in England, farmers would be willing to submit to a little loss of fertilizing matter, if it would enable them to cart out their manure at a leisure season of the year.

Our correspondent has 90 acres of land, and manure enough say, for 10 acres. When and to what shall he apply it? Shall it be used in the spring, in a comparatively green state; and, if so, to what crops? Not to barley; not to oats; farmers are mostly unanimous on this point. To grass land as a top dressing? No; for, if dry weather ensues, it will do no good. For such a purpose it should be composted with loam, muck, &c., and applied *very early* in the spring, or still better in the autumn. The only crops left are potatoes and other roots, and corn. It is certain that to get a large crop of potatoes we must in some way make the land rich; yet since the potato disease became so prevalent, the practice of applying putrescent manures directly to the potato, has become much less common than formerly. We are not prepared to say that it is an injudicious practice, although there can be little doubt that potatoes so grown are more liable to the disease, and are not so palatable as those grown on poor sandy soil. Carrots, parsnips, beets, mangolds, &c., must have manure, but it ought to be pretty well decomposed. Corn likes manure, and is not particular as to how it is applied. Nevertheless, in a dry season, the benefit received from green manure plowed in, or even from that which is thoroughly decomposed and applied in the hill is not very perceptible.

As we said, English farmers frequently use their manure for wheat. They turn over a clover ley immediately before sowing the wheat, and plow under the manure at the same time. Farmers are here too busy during the wheat seeding to adopt this practice, even were there no other reasons against it. Many of our best wheat growers break up their clover sods in July, and sow the wheat without any more plowing—the land being kept clean, and got into good tilth by the frequent use of the cultivator, harrow, &c. Manure might be plowed under in July, at breaking up; but considerable clover is generally turned under, and it would be difficult to bury both clover and manure so that the cultivator would not afterwards work it up to the surface. Nevertheless, if the farmer is not too busy in the corn or hay field, we are not sure but what, under certain circumstances, such a practice might be advantageous.

Unless the soil is very light, or very hilly, and there is danger of leaching, we should, taking everything into consideration, prefer to apply manure in the fall after the busy season is over, or perhaps in the winter during good sleighing, to such clover fields as are intended to plant with corn or potatoes next spring. This manured land would give an early bite of clover in the spring, or if it was not wanted as food for animals, it might be turned under as food for plants. The land should be planted as soon after it is plowed as possible, for it is said that the grubs will feed on the clover and not touch the corn till it has obtained sufficient strength to resist their attack.

To carry out this method of applying manure in the autumn, we of course have to keep the manure made during the winter, through the dry hot summer months, and there is much reason to apprehend considerable loss of fertilizing matter, as barn-yards are usually constructed and manure heaps are too frequently managed. But there need be no loss—or at least very little. In a good yard, where the buildings are all spouted and a commodious tank is provided to hold all the drainings, the manure need not be touched, but should be well covered in the spring with old straw, muck, loam, or other absorbent material; and the mass be occasionally watered from the tank as it becomes dry. The drainings in the tank should be kept well saturated with plaster.

We throw out these hasty hints, in the hope that our correspondents will take up the subject, and discuss it freely through the columns of the COUNTRY GENTLEMAN.

Agricultural Discussion at the State Fair.

Comparative Value of Guano and Barn-yard Manure—Salt, &c.

During the late State Fair at Elmira, some little excitement was caused by SOLON ROBINSON, of the *New-York Tribune*, asserting that on Wednesday evening he would prove that *no farmer could afford to draw manure a mile, even could he obtain it for nothing.* At the appointed hour the room was filled, and the speaker essayed to fulfil his promise.

On a prairie soil, he said, it would not pay to draw manure *any* distance, because the soil contains too much humus. He had himself, preferred to move the barn instead of the manure. But he did not refer to these soils. He would instance the poorest soils of Long Island, or the sand hills of Albany, where farmers were in the habit of taking their straw to New-York, selling it for a trifle over the cost of drawing, and taking back a load of *colored* straw called manure. It was on these poor soils that farmers could not afford to draw manure one mile. But he should be asked, "What will you do with the manure?—throw it away?" Not at all. Apply it to the land near the house, and on the more distant fields, use some concentrated fertilizer, in the fore ranks of which he placed Peruvian guano. He had seen 200 lbs. of Peruvian guano per acre, increase the wheat crop from four to seventeen bushels per acre. Could any such results be obtained from barn-yard manure? Could any farmer afford to draw it a mile when he could get Peruvian guano at its present price? Then there was salt. "Salt is worth more as a manure than it sells for for other purposes. Farmers can make money by going to Syracuse and purchasing salt at market prices and sowing it on their land." One farmer had told him to-day, that he hauled wet leached ashes 16 miles, and he considered the benefit sufficient to pay the expense. He, Mr. R., asked him why he hauled ashes so far. He replied, "for the good they do the land." Mr. R. supposed the benefit was from the potash they contained. Now, could not the potash be obtained in a more concentrated form? Boats are now being loaded at Rochester, with leached ashes for the use of Long Island farmers. The potash they contained could be obtained in the market at a much cheaper rate. The time is coming when the farmer will know what to put on his land to produce wheat or any other crop, as certainly as the housewife knows what to put into the trough to make bread. It is just as easy for him to know.

SANFORD HOWARD of the *Boston Cultivator*, thought the benefit derived from leached ashes was not from the potash they contained alone. He did not know what gave leached ashes their peculiar value. No matter if we do not, so long as experience proves their value. We know, however, that they contain some phosphates; and it is probable that *old* leached ashes, that have been exposed to the atmosphere, contain nitrogen, and would be valuable on that account. He had seen guano used without any visible effect. He mentioned several instances where salt had been applied to land without any benefit. One gentleman who manufactured salt, and had tried it on his land repeatedly, informed him that he found the less salt he got on hs soil the better.

L. WETHERELL stated that a farmer in Hampshire County, Mass., informed him that "no farmer could afford to move his manure at all, as long as he could obtain guano at present prices." Another farmer told him, that on poor land where he could obtain nothing—not even "poverty grass," by the use of 300 lbs. of guano per acre he succeeded in raising 30 bushels of wheat. Another gentleman had used guano as a top-dressing on grass, and obtained good results, but ever afterwards nothing would grow on the land.

Hon. GEO. GEDDES, of Syracuse, had long time ago given up the idea that agriculture is an exact science. He had tried salt to his satisfaction. He had staked out a rod of land in each of three different fields, and carefully dressed them with salt, and sowed them with barley, oats, and wheat; and he never could see the difference between them and where no salt was applied. The President of the Onondaga County Society called on him to visit a field of wheat, where salt had been applied on a portion of it, and where, he said, the exact line of demarkation could be distinctly perceived; but his, (Mr. Geddes',) eyes were not sharp enough to distinguish it.

HUGH T. BROOKS, of Wyoming, thought a good deal of barn-yard manure. When we speak of barn-yard manure, we use an indefinite term. It may mean something of great value, or a comparatively worthless compound. He put a good dressing of manure on his corn fields, and the census man stated that it was the best corn he had seen. He, Mr. B., thought that farmers should husband their manures, and return all animal and vegetable refuse to the earth from whence it came.

SANFORD HOWARD said there was a gentleman present who had had much experience in the use of guano and other concentrated fertilizers, and who had been for some years connected with an extensive series of experiments in England, and he would like to hear his opinion in regard to the subjects under discussion. He referred to JOSEPH HARRIS of the *Country Gentleman.*

Mr. HARRIS agreed with Mr. Robinson that Peruvian guano was the cheapest and best concentrated fertilizer at present in the market, for wheat, corn, and other cereals. Mr. R. had not attempted to prove that "no farmer could afford to draw manure one mile." He had simply endeavored to show that Peruvian guano, salt, &c., were cheaper sources of fertilizing matter than barn-yard manure. The question to be decided, was the relative value of Peruvian guano and barn-yard manure. Chemical analysis afforded much light on the point. Peruvian guano contained all the elements of barn-yard manure. The difference between them is mainly in the relative proportion of these elements. Barn-yard manure contained an immense amount of carbonaceous matter, silica, &c., while, Peruvian guano contained very little. But these substances were of little manurial value. The most valuable ingredient in Peruvian guano was ammonia, and we may take the quantity of this substance as indicating the relative value of the two manures. Certainly this method would not underrate the ultimate value of barn-yard manure. Good Peruvian guano contains twenty-five times as much ammonia or nitrogen as good barn-yard manure. According to this method of estimating their relative manurial value, one ton of Peruvian guano was equal to 25 tons of barn-yard manure. If Peruvian guano sells for $50 per ton, barn-yard manure is worth $2 per ton. He would leave farmers to decide whether they could afford to draw it one mile for this.

In reply to various questions asked by several gentlemen present, Mr. H. said he had seen salt used as a manure in many instances, and never once with any marked beneficial effect. Nevertheless there were many well authenticated experiments where it had produced a considerable increase of the crop. It gave strength and brightness to the straw. Prof. Way has suggested that salt acts beneficially on some soils, by increasing the solubility of the double silicate of alumina and ammonia, in which form he thinks it not improbable that the silica so largely existing in the straw of wheat, and which enables it to stand erect, is taken up by the plant. We have no existing system of rotation, by which sodium and chlorine,—the elements of salt,—could be removed from the soil without, at the same time, removing other elements of plants in greater proportion. Salt, therefore, can never be used, to any great extent, as a manure. It can never be a manure equal to phosphoric acid or ammonia, inasmuch as a small quantity only is removed from the soil, as compared with these and other substances. He, Mr. H., was greatly in favor of Peruvian guano, yet its value might be over estimated. In England, 3 cwt. of good Peruvian guano gives an increase in the wheat crop of 10 bushels per acre. At present prices this would cost $10, and it follows that if wheat sells for $1 per bushel, little is gained by its use; but if it sells for $2, the application of guano will be quite profitable. Those who are continually holding up to our imitation the high farming of England, appear to forget that English farmers obtain a higher price for their produce. He believed, that for the production of wheat this climate was superior to that of England, and that if he could obtain English prices,—if he could obtain $3 per bushel for wheat, he could annually raise 50 bushels per acre.

Gen. Harmon, of Wheatland, thought this could not be done, and offered to pay the gentleman $3 per bushel for all the wheat he could raise in crops of 50 bushels per acre.

Mr. Harris believed that this climate would enable him to raise such crops if a sufficiency of mineral and ammoniacal manures were supplied; but had he anticipated Gen. Harmon's proposition he would have said 40 bushels, in order to be within safe bounds. Last year Mr. Lawes of Rothamsted, England, produced 55 bushels of wheat per acre on land that had grown 12 crops of wheat in 12 successive years. This result was due in a great measure to the dryness of the season. Had the same amount of fertilizing matter been supplied in a wet year the crop would have been all straw. A dry, hot season, is what good English wheat growers desire. The nearer their summer approximates to ours in rain and temperature, the better their wheat crops.

An animated discussion followed on the value of salt as manure. JUDGE CHEEVER said he applied a quart of salt to his plum trees and it killed every one of them. L. Wetherell thought salt was good for plum trees, and he had been informed that it would cure the black knot.

This was emphatically denied by many gentleman present. Salt had been repeatedly used for the black knot, and proved of no use.

Mr. Osborn of Watervliet had used salt on his orchard with the best result. It had an astonishing effect.

Mr. Harris asked how Mr. Osborn knew that the salt was beneficial—was a portion of the orchard left without any salt?

Mr. Osborn replied that the *whole orchard was dressed with salt*, but that he knew the salt had a good effect because the trees grew better the year after it was applied than they did the year preceding.

James Vick of the *Genesee Farmer*, made a few humorous remarks on the subjects under discussion, alluding to the discrepancy between the statement of Solon Robinson that 200 lbs. of guano would give an increase of 13 bushels of wheat per acre, and that of Joseph Harris, that 336 lbs. were required in England to produce an increase of 10 bushels over the unguanoed portion of the field.

Mr. Harris said that if guano was found to produce as great an effect as that ascribed to it by Mr. Robinson, he quite agreed with him that it would be more profitable to buy guano than to draw manure one mile, even if it could be had for nothing. He believed, however, that, *as a general rule*, no such results would be obtained.

The Utmost Capacity of an Acre.

How seldom, save for the purpose of securing a premium, is the utmost capacity of an acre as to productiveness put to the test! The prevailing ambition with the majority of farmers is to go over as much ground as possible or to put in, every year, *as many* acres of wheat, corn, oats, and other things as they possibly can. This prevailing ambition and practice is kept up, not on the ground of any rational theory or any practical demonstration of its superiority, but mainly in virtue of the common custom, in agricultural as in other matters, of doing as other people do. So far as it claims any support or justification whatever, that claim rests, in the last result, in the position that it is easier or more profitable to skim over a good many acres than to cultivate a few in a superior manner. This, we think will turn out, when examined and reflected on, not a *fact* or a *truth*, but a baseless or false *assumption*. A few statistical facts will help to determine this question.

According to the Statistical View of the United States, or Compedium of the Seventh Census, for 1850, the average product of wheat throughout the whole of the states does not exceed twelve bushels per acre. Twelve bushels per acre is, according to the same authority, the average of the wheat crop of the states of New-York and Ohio. These estimated averages are probably rather *under* the actual products of the several states than otherwise; but the true average of either of the States specified did not probably exceed fifteen bushels per acre. Notwithstanding, then, that in the best wheat districts, and by extra-cultivation averages have been obtained of over twenty-five bushels, and individual crops of forty bushels or even more, still the evidence of the statistical returns is sufficient to prove that the average or ordinary product of wheat in these states, *where the mode of culture has been only average or ordinary*—at least not at all extra—is only at most about fifteen bushels per acre.

Now at what may the cost of the ordinary mode of putting in, harvesting, threshing and marketing a crop of wheat be estimated? After several estimates in different years, and after comparing a number of estimates by others, both published and unpublished, we have arrived at the conclusion that the cost of raising a crop of wheat may be estimated at ten dollars ($10) per acre. In the estimates by which the above average has been arrived at the straw has usually been taken as a set-off against the interest on the value of the land.

According to these estimates the cost of raising and getting all ready for market a bushel of wheat may be averaged at 70 cents. This is a confirmation of those rough guesses, without any accuracy of calculation, which place the expense of raising an ordinary wheat crop at 75 cents per bushel.

Now, in order to determine whether the *ordinary* mode of cultivation, or that in which *extra* pains are taken, and by which every acre is urged forward to its utmost capacity, proves the *most profitable*, all that is necessary is to take any number of certified specifications as presented to county or state Societies which have offered premiums for the best crops, and compare them with the foregoing averages. Let the cost of of cultivating an acre be divided by the number of bushels raised on each acre, and the result will show the expense of raising each bushel, which will always be found *less* than the average by *ordinary* cultivation. The difference between expense and the market value, of course is profit, and the amount per each bushel being multiplied by the number of bushels, and that amount by the number of acres which each reader usually puts into wheat each year, will give him the amount of profit which he would make, each year by urging each acre to its utmost capacity of production.

Or, let him take any price as an average, say one dollar, and all the value of the crop at this rate, over the expense of cultivation, will be *net profit*. While at this price only five dollars per acre could be obtained by *ordinary* cultivation, several *premium* crops may be found on record which gave a net profit of thirty-five dollars and upwards, over all expenses. With the price of wheat above one dollar the difference in favor of high culture would be still greater.

New Fine Climber.

Ipomea limbata.—This is a new and very beautiful variety of the elegant genus Ipomea. The flowers are large, of a rich crimson, bordered with white, and when the plant is covered with them, it is a truly splendid object. The stem is very branching and in a short time will cover a large space. It is increased by seeds or by cuttings which strike freely. N. Stone.

Fine Fall Flowers

Anemone Japonica.—A most desirable autumnal flowering plant, beginning to bloom about the first of September, and continuing to expand its rich crimson blossoms until snow falls. The flowers increase in size and beauty as the weather grows colder until the ground freezes, when the stems die down and the roots remain deep in the ground till spring. It grows in clumps like the Peonia, and like that requires a moist, deep soil. It is easily propagated by division of the roots, the smallest piece of which planted in spring will grow to a fine plant and bloom the same season. N. Stone.

Curious Sport of the Petunia.

In a large bed of Petunias in my garden, two plants have produced, from several of their branches, a succession of twin flowers, consisting of two, three, and in one instance, five buds growing into one. The bell of each flower was split on one side and connected with the adjoining one, and all were twisted and contorted in a manner singularly wild and beautiful. The colors of these twin flowers were much brighter than on the single ones on the same plant. N. Stone.

Training Colts—Heaves—Scratches.

Messrs. Editors—The horse, and all that relates to him, is interesting to most persons who like his traits or need his services. Farmers especially, receive with favor any intelligence in regard to their "willing slave," which may promise to improve his condition or remedy his defects and diseases. And it is no wonder, when we consider how constantly he depends on the strength of the animal for the means of his livelihood, as well as a great share of his pleasure. The young horse, "the limber colt," when kindly cared for, is agile and playful, ready to learn and do his lessons, if taught in a gentle manner. Scarcely ever is violence or severity necessary, and always prolongs and makes more tedious the training required to render the colt of service. Inquiries have been made through the Cultivator, as to the best way of "breaking" young horses. They have been answered, and judiciously. Kind and gentle usage is justly recommended. The secret *charm* of changing the wild and wayward colt into the safe and reliable horse, is to *assure* him he has nothing to fear, and that he shall not be hurt. Show him how much you love him, and wish to be loved by him, but at the same time that you do not fear, and will have the mastery and management of him. The most suitable time to effect this, is soon after he is weaned from the dam. If then for a few months, extra pains are taken to teach him lessons of obedience and docility, he will never forget them, and small preparation will be required, and little difficulty need be encountered to fit him for usefulness, when he arrives at the proper age for it. The details of this business are well enough understood by horsemen, and none other should attempt to "break in" the high mettled colt. Moreover the man of even temper, patient, 'long-suffering, and of great kindness,' will always succeed best.

As to the diseases of the horse, the writer of this knows little, and will therefore say little. But he would allude with satisfaction to your notice of heaves in the Oct. Cultivator for 1854. The cause, *cure*, and treatment of that *plaguy* malady, is there given in a nutshell. It is written, the structure of the lungs, when once broken, cannot be repaired by medicine. But the horse afflicted with heaves may be rendered nearly as serviceable as the sound one, by great moderation in all things. Violent work, especially if accompanie with gross feeding, is almost sure to aggravate the disorder. Fresh and sweet grass always alleviates it, but old or dry, and foul pasturage, has a contrary effect. The easiest way of feeding in the stable, is on clean rye or wheat straw, with a liberal allowance of oats; if wetted or washed clean in a basket, so much the better. When the *fits* come on by cold or otherwise, a few feeds of scalded bran with saltpetre dissolved in them, are just as good as the best advertised "heaves cures." Moderate bleeding also, if the horse has been full fed, has a tendency to "suspend" the disorder.

Heaves are hereditary. Mark that, ye breeders, and keep your tainted mares from the stallion. Not only this, but spavin, ringbone, splints, curb, windgals, crib-biting—all these and more, are far more likely to come upon horses descended from progenitors tainted with them, especially if both were so.

Scratches are caused commonly by laziness, and the horse master who suffers his animal *to catch* them, scarcely deserves to know of a cure. They may sometimes however, happen unavoidably. Gunpowder and hog's lard mixed together and rubbed in, will effect the cure, provided the feet and legs are thoroughly cleansed. Castile soap and soft blood warm water will do this, and a little Indian meal is a good addition. Try it,' (the last named I mean) on your cracked and chapped hands, ye hard working ones. A Subscriber.

Fair of the American Institute.

The Annual Fair of the American Institute is this year held in the Crystal Palace, N. Y., during the whole month of October. We spent an hour very agreeably last week in examining the articles on exhibition. There was a good collection of fruits and flowers, Hovey & Co. of Boston being, perhaps, the largest exhibitors. There was considerable competition for the Best six varieties of Pears. Wm. Cranst of Hoboken, obtained the first premium. His Duchesse d'Angouleme were magnificent, and Glout Morceau, Seckel and Eastern Beurre were very fine. There was a fine display of apples. John W. Bailey of Plattsburg, N. Y. showed 87 varieties and obtained the first premium. The collection, in our opinion, was of average quality only. Here is a plate of apples of great size resembling somewhat the Gloria Mundi. One of them weighs 26 ozs. and measures 15 inches girth. The name of the variety is not given. Wm. A. Underhill of Croton Point, N. Y., exhibited very superior bunches of Isabella and Catawba grapes. R. S. Livingston of Almont, N. Y. shows a seedling pear that "ripens in November." It resembles somewhat the Seckel.

There was a good display of cut dahlias, and a large number of bouquets; but there was an almost total absence of greenhouse plants in pots. This is a great blunder. There is some fine sculpture still on exhibition, standing in straight rows, gaunt and bare. By a little effort, a good collection of green-house plants might have been obtained; and the fine statues of Flora, Venus, and good Mother Eve, in all her Paradisean innocence and beauty, judiciously placed among them, would have had a pleasing effect.

There is a good show of vegetables, especially of seedling potatoes, big pumpkins, and monstrous squashes. T. Fowler of Fishkill, N. Y., exhibits a Valparaso squash weighing 152 lbs., and a Bermuda squash, weighing 31 lbs.

There is a very meagre exhibition of grains. Paul Buchanan, of Newark, N. J., showed some "Emir Barley," a "skinless" variety, weighing 60 lbs. per bushel.

Daniel Boll, of New-York, exhibits some fair tubers of the new potato plant, Dioscorea Japonica, "far exceeding the potato." What is the experience of our readers with it?

Here is a jar of "superphosphate of lime," which has a very strong smell of ammonia, exceeding in this respect even Mapes' "Chilian Guano," and is probably produced in the same way—by adding a little Peruvian guano and quick lime to it. Such a smell is "desired by many farmers," but it is obtained by rendering the compound comparatively valueless. In fact, under such circumstances, there cannot be any soluble *super*-phosphate of lime in the mixture.

There is a goodly number of agricultural implements, but nothing worthy of special mention. Ingersoll's Portable Saw-Mill, for sawing off logs, &c., appears to be a useful machine. It is manufactured by P. C. & S. Ingersoll, Greenwich, Ct. Duncan, West & Sharp, New-York, exhibited an ingenious Upright Mangle for smoothing clothes, by putting them between rollers pressed together by springs. The price is $30.

Some fine sugar beets, and alcohol distilled from them, were shown by A. P. Clermontel, New-York. There is a large display of machinery, but our space forbids allusion to it at this time.

Breadstuffs—Prospective Prices.

It seems to be generally anticipated by the best authorities in England, that the prices for wheat and flour will range pretty high during the coming twelve months. The crop of wheat throughout the United Kingdom, even on the most favorable computation, will be from 8 to 12 bushels per acre less than that of last year, which, at a moderate estimate, will amount to a deficiency of forty millions of bushels in the aggregate. There is also a deficiency of spring grain of all kinds, which may be made up, however, by the potato crop, which is the most abundant there has been for ten years. In France the deficiency is still greater than in England, and hence instead of having any surplus to export, the French are at this time importers of wheat, and likely to be so during the whole year. From the other countries of Europe there is no prospect of any supply, as Spain is the only country apparently likely to have any surplus, and this will be absorbed by France and the Mediterranean States.

The principal supplies for British markets must come, therefore, from this country and Canada. There was imported last year from America into Great Britain and Ireland, about 380,000 quarters of wheat, and 160,000 barrels of flour, "and supposing," says the N. B. Agriculturist, "we should get to the extent of 3,000,000 quarters in wheat and flour from that country during the next twelve months, it would not suffice to make good the supposed deficiency in our home crop this year to within 1,500,000 quarters." It is probable that we shall not be able to supply England beyond the above estimate, for our ability to export grain decreases every year by reason of the consuming population increasing every year much faster than the producing.

With these deficiencies in the wheat crop of Great Britain, and the prospects of supply less than they were last year, or the supplies, at least, not likely to rise materially above those of last year, there is good grounds to suppose that prices must advance, rather than stand as they are, or suffer any reduction.

From data similar to the above, several journals in Great Britain, have come to similar conclusions. Obs.

Improvement of Sandy Soils.

To Arator.—I have read your article in the Country Gentleman of the 4th inst., upon the improvement of sandy soils, and as you ask for "light" upon the subject, I have concluded to give you mine. I shall be brief. Your land needs two things, perhaps three. They are, clay, lime and charcoal. Apply these, and send to Saml. Sands, Esq., editor of the American Farmer, Baltimore, for Oregon peas, and drill them in rows—4 feet apart—chop out to a stand 2 feet or such a matter apart from each other, and cultivate with the plow. When they are in full leaf, lay off deep and wide furrows between the pea rows, pull up or cut them, (they are a bush not a vine,) lay them in these furrows, and cover them by running the plow on each side. Upon these furrows plant your wheat or other crop, and roll the ground hard. The clay, lime and charcoal, will make your sandy soil stiff as you may want it, and the Oregon Pea will fertilize it, especially for wheat. B. V. Iverson. *Columbus, Ga.*

We venture to add to the above, the private note accompanying it: "If you think proper, publish the above remarks, perhaps they may advantage Arator as much as the practice has me. The Oregon pea is worth more to our country than forty Chincha Islands. They cost nothing, and while guano is evanescent, adding nothing permanently to the ground, this pea returns humus—nature's mode of restoring fertility to soils. Our reliance is grass and peas—the first to obtain manure by feeding stock, and the latter to pay back to the soil what crop robs it of."

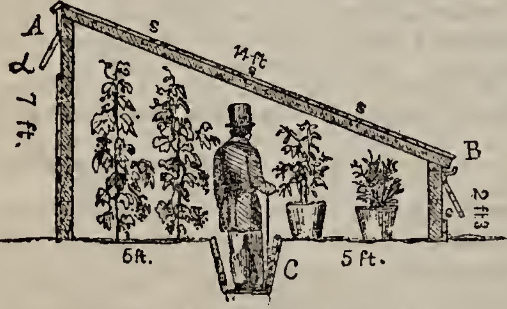
Cheap Vineries and Plant-Houses.

Some few years ago attention was drawn by Mr. Downing, through the columns of the Horticulturist, to a cheap kind of structure, first brought into notice, and very extensively used for a variety of purposes, by Mr. Rivers, of Sawbridgeworth, England. Their great feature consists in their exceeding cheapness, and hence adaptedness for commercial gardeners and amateur growers of limited means. With more or less modifications to suit circumstances, many have since been put up in various parts of this country, and among them was one in this city, built three years since by Mr. J. Mayell, and now owned by Mr. Luther. The vines in this house have this year borne an immense crop of fruit, and go far to show that however rude the structure, as fine fruit can be raised as in the most costly. This house was put up by the above gentleman altogether as an experiment, performing with his own hands the entire labor, or nearly so. Its length is 100 feet—its width about 10 feet—about as high at the back, and was completed for the incredible sum of *one hundred and fifty dollars*, or $1.50 the running foot. It should be borne in mind, however, that the wood was unplaned, and therefore presenting a rather rough appearance, but which in no way alters the main feature, as the planing, rebating, &c., fit for glazing, can be performed by machinery, and hence add but little to the expense, while the wood is then in a fit state to receive a few coats of paint, and will last a good many years.

The accompanying figure and description is from the Horticulturist, and if used as a cold vinery requires some little modifications, as the raising of the back some three or four feet, to give more length of rafter, and to give a sharper angle to the roof, which is very necessary in this climate, to prevent the hot sun from burning the foliage of the vines.

The vines are to be planted on the outside of the front, and trained on wires strung across the house, about one foot from the glass. Another row to be planted to grow up the back. The border should be made inside and out, and for the one we have alluded to (on a clay bank,) was nothing but common street dirt, and for Albany or similar clays, perhaps no better material can be found, as it possesses sandy matter in abundance, which is the precise agent clays are the most destitute of, to constitute them good soils for gardening purposes. **Edgar Sanders.**

The frame of this building is wholly of wood. Posts are set into the ground about six feet apart. These posts rise seven feet above the surface at the rear, (A.) and two feet three inches at the front, (B.)



They are sheathed or weather-boarded in the common way, on the outside of the posts, along the back and front—the two ends being also boarded up—with a door in each or in both ends—opposite the sunken walk, (C.) This walk is sunken, partly to economise cost, and is needed to raise the back and front high enough to walk under the roof, and partly to bring the plants as near the glass as possible—a great desideratum in all plant culture.

So far, it will be seen that this structure costs little more than a board fence. Now let us examine the glass roof, for it is here that the cost usually lies. And as this cost is not so much in the glass, as in the sliding sashes, all nicely jointed and framed, and the grooved rafters in which they are to slide, Mr. Rivers has cut loose from the whole system of sashes, and made the entire roof one fixture. Ventilation, which is not to be dispensed with, he provides for in a much more effectual manner than the common one, by having boards, *d*, *e*, both at the front and rear—(either at intervals, or along the whole line, as may be needful,) hung upon hinges, so as to open outwards, and permit a stream of air to pass over through the breadth of the whole house.

To construct the roof, a strip of timber—what is usually called a wale strip— is laid along the top of the front and back parts to form a "plate." To this plate are nailed the rafter pieces, about five or six feet apart. Across these rafter pieces, light strips, i. e. *s*, *s*, *s*, about two inches, by one inch, are let in on a level with the top of the rafter. Then, along the whole length of the roof, in the direction of the rafters, light strips are nailed to the bearers, *s*, *s*, *s*. These strips are *rebated* on the top like a common sash-bar, and are of course laid upon the roof just far enough apart to receive the glass—say 7 inches, (if 7 by 9 glass is to be used.) No *framing* of sashes is necessary, and when the whole is glazed, it is light, strong and durable, and is put together so easily, that a house 30 or 40 feet long, can be built very quickly. The strips that make the sash bars are both sawn and rebated at the saw-mill; and as many of Mr. R.'s houses are built of rough stuff, left unplaned, and coated over with ship-varnish instead of paint, the construction is reduced to the minimum of simplicity and expense. The house we show a section of in the figure, is used as an early forcing house for grapes and other fruits, and the grapes are grown upright in an inside border on one side of the walk, while the other side is occupied with fruit trees—peaches, nectarines and figs, in pots laden with fruit.

Transplanting Evergreens.

Editors Country Gentleman—My experience in transplanting evergreens from the forest, may possibly be useful to others.

Mr. Downing, in his book upon Landscape Gardening, makes the remark, that "the *only* period for the successful removal of evergreens *here*, is the spring." That a gentleman of the nice discrimination and experience in arboriculture, of Mr. Downing, should make such a general remark, so positively, seems strange. What should we think of a naturalist, who, in describing domestic animals, should class them all together, as having manes, horns, cloven feet, wool and fur? This would all be true of the animals collectively; but would, at the same time, very much mislead the uninstructed inquirer. The horse has a mane; the cow, horns; the swine, cloven feet; the sheep, wool, and the cat, fur: but the man who should buy a cloven-footed animal for the saddle, or a furred one for her milk, would probably find he had made a mistake.

Or take the article of grain, which includes wheat, rye, maize, oats and barley. A stranger goes into a new country, perfectly unacquainted with these productions. He inquires of a friend, at what time to sow his grain; and is told to do it in September. He accordingly sows his corn, oats and barley, and having failed in the realization of his hopes, he renews his inquiries, and is informed that the *only* period for sowing grain, is the spring. He accordingly puts in his rye and wheat, and fails again. The inquirer now gives up in despair, and takes the absolute position that you cannot raise *grain* in that country.

Having taken possession of my place in June, I could not then practice upon Mr. Downing's advice. But in October I brought 100 young trees, about equally divided between the Pines, Hemlocks and Red Cedars, and planted them in my grounds. They flourished half the winter, but in the spring *all were dead.*

In April following I replanted them, with fresh trees from the forest. The weather was favorable, and the trees were removed with a good deal of care. Out of this lot, I succeeded in saving one pine, one hemlock, and one cedar.

Not discouraged, the succeeding winter, I brought of large pines and less sized hemlocks, 16 each, and seven or eight red cedars, with large balls of earth adhering to them. Nearly all the pines are alive, and promise success. *Every hemlock died;* and nearly every cedar.

In the month of July, two years ago, I took up four cedars and transplanted them to my grounds. They are all live and flourishing beautifully. A year ago last August, I brought several more cedars, with a number of hemlocks, and planted them with less than usual care. Nearly all of them are now growing, and promise to become thrifty trees. I have also young trees and a hedge of Arbor Vitæ, doing well, which were transplanted from a swamp in April last.

The result of my experience, then, is, that arbor vitæ and balsam firs may be removed successfully in the spring, pines at mid-winter, and red cedars and hemlocks in July and August.

I have many cedars and hemlocks now growing, which appear to be thrifty and secure, which I brought from the woods on the 26th day of July last, when the sun shone brilliantly, and the thermometer stood at 96° in the shade.

I once transplanted 20 pines from the forest in *June*, and succeeded in saving twelve of them.

I ought to add, that it is quite possible that my hemlocks and cedars removed in the winter, might have survived, had the winter been followed by a summer ordinarily favorable. The excessive drouth, probably, aided in their destruction. The same drouth, however, did *not* kill those which I transplanted the same dry summer.

I had replanted my red cedar hedge three times, in the springs of 1852, 1853 and 1854. I suppose this summer not more than one-third of the stocks were alive.

In July, as I mentioned, I renewed the trees, and, as far as I can judge, very few have died. H. W. Taylor. *Canandaigua, Oct.* 15.

Management and Breeding of Sheep.

At this season of the year, sheep demand more than ordinary attention. The soil is saturated with water, the nights are cold, and the grass is so innutritious that, no matter how abundant it may be, sheep will not thrive on it. They should be placed in the fold at night, and be allowed what straw or other dry food they will eat. If possible, let them run on the highest and driest land on the farm. Wet meadows are injurious to sheep at all times, but particularly so in the fall and spring of the year.

Wool is a drug, and many—unwisely, as we think—are slaughtering their sheep. If a farmer, however, thinks it is for his interest to lessen his flock, all very well, but let him guard against the error of disposing of his *best* sheep because their carcasses happen to command a little higher price. To carefully select out the best ewes and keep them for breeding, and sell the old and poor ones, would be better economy.

The high price of good mutton is drawing the attention of farmers to those breeds of sheep which mature early, and afford mutton rather than wool. No one can question that the Leicester or South Down sheep or any of the breeds of "long" or "middle" wool sheep, will fat easier and produce more, not to say better mutton, *for the food consumed*, than the Merino or other fine wooled breeds. It is well known that highly organized matter, whether vegetable or animal, is obtained only by a great consumption of matter or force. We obtain a given amount of vegetable matter in the white turnip at a less expense to the soil than the same amount of matter in the sugar beet, mangel wurzel, or carrot because the latter is much more highly elaborated. We believe the same law holds good in the animal kingdom. In a *scientific sense*, therefore, fine mutton or fine wool cannot be produced as cheaply as coarse mutton or coarse wool. The Sussex or true South Down is probably the finest and most highly organized breed of mutton sheep, and the Cotswold the coarsest, and Mr. Lawes' experiments demonstrate that much more mutton and wool, such as it is, can be obtained for the food consumed, from the Cotswold than from the South Down. There seems to be a gradual gradation, which is quite remarkable. Sussex Downs are a finer breed than Hampshire Downs, Leicesters than Hampshire Downs and Cotswolds than Leicesters, and the experiments referred to show that more food is required to produce 100 lbs. of mutton with Sussex Downs than with Hampshires, more with Hampshire Downs than with Leicesters and more with Leicesters than with Cotswolds. The price of the mutton in Smithfield market, however, followed the same scale, and counterbalanced the seeming gain, the Sussex Down mutton commanding 3 cents per lb. more than the Cotswolds.

It is highly probable that Merinos, being a still more highly organized breed than the South Down, would require still more food for the production of mutton and wool. Their mutton and wool, therefore, must command a higher price than coarse, or they cannot be produced. This is contrary to the opinion of many writers, and we shall be glad if they will discuss the subject through our pages. We have not now space, however, to elaborate this idea.

Mutton is in demand. In a year or two fine wool will also be in demand at fair prices. Under these circumstances it will be impolitic to sacrifice the fine wooled sheep and stock the farm with the coarse wooled mutton breeds; for before you have many for sale, fine wool may be again in the ascendant. Would it not be a wiser course to carefully examine, at this time, the flocks, and select out every poor sheep for immediate disposal. All the wethers that are in thriving condition should be placed by themselves, and allowed a liberal diet. Before next February they will command a high price for the butcher. The ewes we would divide into two lots. If the flock is derived from the common stock of the country, crossed with fine wooled bucks, you will find some ewes with fine and heavy fleeces, while others are larger and coarser and possess more of the characteristics of the mutton breeds. The former should be placed by themselves, and at the proper season—say middle of December—have the best fine wooled buck at command placed with them. The others we would immediately put to a coarse wooled buck; South Down or Leicester. The lambs would come about the first of April, and if provided with dry, comfortable quarters, and nutritious food, would be worth by the middle of June in any of our large cities from three to five dollars a head.

We know many farmers who have adopted this method with much success, and our principal object in throwing out these hasty remarks is to induce them to give their experience to our readers.

* * *

Posts last a vast deal longer in wet soils than in dry, sandy loams—longer in clay than in the richest soil. In peat meadows, the bottom of the posts hold out longer than the tops and the rails.

United States Ag. Society's Fair.

The Third Annual Exhibition of the United States Agricultural Society, came off last week in Boston. On Wednesday, the rain descended in torrents, and the prospect was that the $20,000 so nobly guaranteed by the citizens of Boston, would be required to defray expenses. On Thursday, however, the weather was favorable, the officers of the society exerted themselves, and spared no expense in carting in soil and laying down planks to render the grounds passable. They succeeded, of course. Never have we seen a finer show ground. Never a more delightful sight than the rows of stalls and pens covered with canvas, and the numerous tents of E. C. Williams. Every thing was arranged with good taste, and the most generous economy reigned throughout. Thursday and Friday were fine days, and—the success of the exhibition was greater than the most sanguine could have expected. The receipts were not far from *thirty-five thousand dollars.* Hurrah! for Boston, and the United States Agricultural Society.

Editors are *sometimes* privileged individuals. Come with us, and let us see if we can get up on to the upper portion of the judges' stand. Here we are; and obtain a bird's eye view of the whole. What a scene? Boston is situated on a peninsula, and the Fair is held on its neck. In fact, a few years ago the waves rolled over the place where we now stand. It is all *made ground.* Man commanded the waters to stand back and they obeyed. There they are at a little distance, placidly shining in the rays of an autumn sun, crossed and recrossed by the bridges of the innumerable railroads which centre in this far famed city of—notions. We can just catch a glimpse in the opposite direction of two newly formed squares, or as they would be termed in other American cities, "parks." Two large and beautiful fountains constantly play, and administer pleasure to the thousands who stand to witness them. See the streams of people pouring in by thousands in all directions. Ample as are the accommodations at the entrance gates, an immense concourse is waiting impatiently to get in, and hundreds give up the attempt and return home. Inside the grounds there are probably 60,000 persons. Such a sight is seldom witnessed. The grand cavalcade of Boston Truckmen is now marching round the ring, and a fine show they make. Such a turn-out of heavy horses could be made in no other city in the country. We cannot say much for the riding. Pat on horseback finds himself in an unusual position. There is not a large show of carriage horses. That beautiful span is owned by David Leavitt, Esq., of Great Barrington, Mass., the owner of the Great Barn. This span of light, black horses, prancing along, took the first premium at Springfield two years since. They are much admired, and will doubtless take the first premium here. They are a little too light bodied and long in the legs to suit our taste. There is a race —we beg pardon, a "trial of speed"—to come off shortly, and the fact cannot be denied that it is this which draws such a crowd. We never cared to see a race, so let us go and take a look at the cattle.

Here are the Short-Horns. Messrs. Morris & Becar of New-York, exhibit 18 head. They are all "very good." We believe England itself could not turn out as large and good a show from any single herd. P. Lathrop, of South Hadley, Mass, showed his large five year old bull "Kirkleavington," and four cows. Here is a handsome bull, nearly white, and of good form, though somewhat too sprightly for a Short-Horn. He attracts much attention. He is owned by T. G. Aycrigg, of Passaic, N. J. L. Smith, of Wilmington, Vt., showed in this class his 5 year old bull "Ajax," weighing 2660 lbs

Herefords were well represented. W. H. Sotham, of Owego, N. Y., being the principal exhibitor. His bull, "Defiance," was excelled by no three year old on the ground, of any class. David Goodell, of Brattleboro, Vt., also showed his splendid bull "Cronkhill." There was, also, a good Hereford cow and heifer from the State Farm at Westboro, Mass. Such animals as these cannot fail to remove some of the prejudice which exists against this excellent breed.

The show of Devons was large and very superior. The celebrated herds of E. G. Faile, L. G. Morris, and C. S. Wainright, of this state, were well represented. The cows "Kate Kearney" and "Moss Rose" of the latter gentleman, are most beautiful animals—but a little too fat. Mr. Faile's yearling bull Tecumseh, which took the first premium at Elmira, is an animal of great promise. "Winchester," a three year old bull bred by S. & L. Hurlhut of Ct., and now owned by J N. De Forest, of Dover, N. Y., took the first premium, and attracted much attention. Wm. Buckminster of Framington, Mass., showed 16 head of very useful Devons. Our readers will recollect that this is the herd which it was claimed would make a pound of butter from four quarts of milk. They have evidently been bred with reference to their milking qualities. B. V. French of Braintree, Mass., and many others, showed excellent Devons. A cow of Mr. French's, half Devon and half "Creampot," is a perfect beauty.

There were some good Ayrshires shown, but not as many as we expected. Hungerford & Brodie of Jefferson Co., N. Y., showed six head. Their four year old bull is a fine fellow, and the five year old cow "Mary Gray" is a perfect beauty—a little too much inclined to fatten, perhaps, for an Ayrshire. R. Richardson of Medway, Massachusetts, showed a fair two year old bull, weighing 1290 lbs. R. Battell, of Norfolk, Ct., showed two useful cows. Mr. Brooks, of Princeton, and Mr. Barret of Concord, Mass., also showed fair specimens of this breed.

The show of Alderneys or Jerseys was the best we have ever witnessed in this country or in England. They were principally from the immediate neighborhood of Boston. S. Henshaw, Brookline, W. B. Bacon, Jamaica Plains, T. Motley, West Roxbury, W. A. Harris, Newton, G. H. French, Andover, Joel Barnett, Southboro, S. R. Spaulding, West Roxbury, J. French, Roxbury, John Washburn, Swampscot, and many other gentlemen exhibited very superior Alderneys. A good cow and a bull of this breed were shown from the State Farm.

For rich milk this breed has no equal. Whether they will make more butter for the food consumed than the Ayrshires or other good milking breeds, we have no satisfactory evidence. Even if they will, which we think quite probable, it would not necessarily follow that they are the best breed for general dairy purposes, for they are of no use for the butcher after they are too old to milk. For a Country Gentleman, however, who desires rich milk at any cost, they are just the breed.

The show of grades and natives was good. There was some fair working oxen; but nothing extra. If we are not mistaken there were more and better at our Albany County Fair.

The show of fat cattle was not equal to our expectations. Boston is justly noted for her good beef, and we wonder there was not more competition among those who furnish it. E. Sheldon, of Sennet, Cayuga Co., N. Y., exhibited the small, but remarkably well-fatted cattle shown by Mr. Freeman of Livingston Co., at our late State Fair at Elmira, and where they took the first premium. Mr. S. also exhibited a pair of thorough-bred Short-Horn cattle, from the herd of Brutus J. Clay, of Kentucky, which were superior to anything we have before seen in this country—we question, indeed, if they have many superior in "Baker Street." They are, however, not so fine and short-legged, as an

English breeder's ideal. James Eddy, of Swansea, Mass., showed a five year old ox that weighed 2760 lbs For so large an animal, he is well formed. Were he as fat as those shown by Mr. Sheldon, he would be a monstrous animal.

The show of sheep was not what might have been expected, in numbers or, *as a whole*, in quality. Chamberlain, Campbell & Ladd, showed their beautiful Silesians, which were much admired. Geo. Campbell, of Westminister, Vt., showed several pens of good French Merinos, and some fine Silesian and Spanish Merinos. W. P. Sanford, of Orwell, Vt., also showed some good Spanish Merinos. The only Leicesters shown, that we saw, were those of Hungerford & Brodie, of Jefferson Co., N. Y.

R. S. Fay, Esq., of Lynn, Mass., showed some Oxford Downs, which are quite remarkable. This breed originated about 22 years ago in Oxfordshire, England, in a cross between the Cotswolds and South Downs. They have been bred in and in ever since, without returning to either of the original breeds. Mr. Fay had 8 ewes, which produced this year 11 lambs, six of which were on exhibition. These six lambs are great beauties, and their *uniformity* is remarkable, considering the mixed and recent origin of the breed. The ewes were very superior sheep, and quite fat, although the lambs were weaned but a few days previous to the exhibition.

South Downs were well represented by L. G. Morris, Mount Fordham, and D. B. Haight of Dover, N. Y. The former showed 14 head, which, taken as a whole, we think we have never before seen equaled at any English or American Fair. This is not a swaggering, thoughtless assertion. Look at this pen of six two year old ewes, the cream of the celebrated Babraham flock, and at this pen of fine yearlings, and tell us if you ever saw anything equal to them, for strength of constitution, depth, breadth and compactness, and for symmetry and beauty. "Young York" and one of his buck lambs were also shown.

Swine were out in full force. L. G. Morris showed several head of Berkshires, not for competition. They are quite large, and at the same time very fine and delicate, approximating somewhat in this respect to the Essex. Suffolks were largely and well represented Those shown by Josiah and Isaac Stickney, particularly pleased us. B. V. French, of Braintree, J. Kitridge, G. W. Wilson, and many others, showed Suffolks. This breed is evidently popular in Massachusetts, though, it is said, the reputation of the breed has been much injured by persons who have sold mongrels for pure bred Suffolks.

The show of Essex was altogether the best we have seen in this country; L. G. Morris being the most prominent exhibitor. W. A. Harris, of Newton, and C. B. Clark, of Concord, Mass., showed good specimens of this most popular English breed.

Hungerford & Brodie showed their magnificent Yorkshire boar, and this, we believe, was the only representative of the large breeds.

There were no premiums offered for mules and jacks, and of course none were exhibited.

Of the show of horses we have not now room to speak in detail. It was good, but some think not equal to the Springfield Horse Show two years ago.

The grand banquet came off on Friday in a large tent on the grounds. Three thousand ladies and gentlemen sat down. After Col. Wilder's able Address, several speeches were made, some very good, and others rather prosy and political; but, on the whole, the banquet passed off satisfactorily, and, in fact, we may say the same of the whole exhibition.

One thing we would particularly commend in this exhibition; the names of the exhibitors of stock were given, together with age, where raised, weight and other particulars. One thing we regret; there were no meetings for discussion in the evenings. These should never be omitted at any of our Fairs.

Rye and Orchard Grass

EDS. CO. GENT.—In answer to your correspondent, who requests information about rye grass (Lolium perenne) and orchard grass (Dactylis glomerata) we present the following. We think little attention has been paid to the cultivation of rye grass in this country. We have specimens of it received from a botanist in New England, but do not remember to have ever seen a field devoted to its culture. Two varieties of it are cultivated in England, the perenneal and biennial. The biennial rye grass is said to be there almost universally sown, either with or without clover, among grain to obtain a crop of hay the succeeding season, the yield, generally affording more and better hay than any other grass. The perennial rye grass ranks among the valued grasses in England and a large portion of Europe, where it is often sown with red clover for hay. Loudon says that after all the experiments that have been made in the other grasses, none have been found to equal the perennial rye grass for a course of mowing and pasturing, for two, three or seven years, and Von Thaer remarks, though some have tried other species both on the Continent and in England, they have in the end returned to the rye grass.

According to the Genesee Farmer, the culture of the Italian rye grass, a variety of the above, was attempted by several in this state without success; it not being able to survive our winters. We think it would succeed well in a large portion of the southern states, especially the northern of those states.

The orchard grass is well adapted to our climate, and we think it well worthy of extensive cultivation. As a meadow grass it is better than Timothy to sow with clover, since it arrives at maturity at the same time with clover, and also should be cut for hay when in blossom. A friend of ours in Ontario county, sowed it separately at the rate of about two bushels of seed to the acre. He mowed it when in blossom, the yield being about two tons per acre. He said his horses and cattle preferred it to Timothy. He obtained his seed at Louisville, Kentucky. It has been objected to this grass that it grows in tufts or bunches, but this arises partly from not sowing the seed thick enough. Perhaps it is not as valuable for hay as for pasturage, there being few grasses that are of more rapid growth or abundant yield. Its leaves have been known to grow an inch in one single night. Sheep prefer it to almost any other grass, and it seems to be peculiarly adapted to them, as it flourishes well on dry uplands, and withstands well the drouths of summer. In the Genesee Farmer, vol. 5, page 245,—we find the following statement of the profits of a crop of orchard grass on about an acre and a quarter of land, containing sixty-five apple trees just beginning to bear. The price current is given at which the respective articles were sold:

17 bushels seed, at $2 per bushel,	$31.00
2 tons of hay, first crop, at $10 per ton,	20.00
1½ " " second " " " "	15.00
Amount,	$69.00

Estimated Expense of Gathering Above Crops.

Cutting and shocking seed, one hand, half a day,	$ 50
Threshing, one hand, one day,	1.00
Cutting stubble off, one hand, one day,	1.00
Making same into hay, and overhauling,	1.50
Cutting, making and hauling hay of second crop,	2.00
Interest on value of land,	4.87½
Amounting to	$10.87½

Leaving a nett profit from an acre and a quarter of $58,12½.

If sown with clover, it should be at the rate of from a bushel to a bushel and a half of seed per acre, to from 4 to 6 quarts of clover seed. The seed should not be mixed in sowing on account of the lightness of the orchard grass seed, it weighing only 14 or 15 lbs. per bushel. It grows better than most of the grasses, and thrives well on either a clay or sandy soil or vegetable loam. It is perennial, and hence more valuable for permanent meadow or pasture. To save the seed, the tops should be cut off by a careful cradler, tied in small bundles and put in shocks, and after standing in the field eight or ten days until it is dried it should then be hauled into the barn and threshed out with flail immediately. If there be a large quantity of seed, it should then be spread on the barn floor, to prevent its heating and destroying the vitality of the seed. When placed in the mow before threshing, it is liable to heat and render the seed worthless. S. B. Buckley. *West Dresden*, *N. Y.*, *Oct.* 14, 1855.

Transactions of the N. Y. State Ag. Society.

The Fourteenth volume of the Transactions of the New-York State Agricultural Society is now before the public. Its 1000 ample pages afford room for much valuable matter, and also for much that is not so valuable, but which cannot well be omitted. We are happy to say that the former greatly exceeds the latter. The Report of Dr. Asa Fitch, the Entomologist of the Society, on "The Noxious, Beneficial and other Insects of the State of New-York," forms a most interesting and instructive paper of some 200 pages. The Essay on "Practical Husbandry," by the Hon. W. C. Watson, and which received the premium of $100, is well written, plain, and practical, and contains much useful information, while it is free from the pretensions which mark much of the agricultural literature of the day. The Essay on "Rain;—Evaporation and Filtration," by Hon. Geo. Geddes, abounds with many interesting and instructive facts.

In the hope of drawing the attention of young men to the subject of agriculture, the Society offered a Gold Medal for an approved essay from a student of the state in any public institution. The prize was awarded to W. P. Prentice of this city, for an essay on "Agriculture—The Young Man in Relation to it." It is a highly creditable production, indicating considerable acquaintance with the theory and practice of agriculture, and a keen appreciation of the pleasures and advantages of rural life.

The "Discussions at the Legislative Agriculture Meetings," held in this city last winter, will be read with interest. The Reports on the management of the premium farms are of even more than usual value, embodying as they do some instructive experiments. The same may be said of the Reports on butter and cheese making, and of the reports from the various County Societies. A number of excellent wood-cuts of some of the best animals of the state, add much to the appearance of the work. On the whole, this volume evidences much thought, labor and commendable progress, alike creditable to the Secretary, the Society and the State.

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☞ We understand that Kingston has been fixed upon as the place to hold the next Provincial Fair of Canada West. Baron de Longueuil has been chosen for President. A better selection in both respects could not have been made.

Importation of Long-wooled Sheep.

Col. J. W. Ware of Berryville, Va., has recently received a new importation of Long-wooled Sheep from that well-known breeder, Mr. Wm. Lane of Northleach, England. The lot consisted of six rams and ten ewes; but three of the latter died soon after their arrival, owing to suffering on the voyage which lasted sixty days. One of the rams, won the prize of £25 at the last show of the Royal Ag. Society, and we find the following notice of it in the *London Farmer's Magazine* for September:

> This is an extraordinary animal; he has a very large fine top, with a well-made frame, his depth through the chest being great, his girth being 5 feet 1¾ inches; his chest, bosom, and plaits all right and full; back level, broad and fat; loin and rump good and broad; hips unusually wide, and well covered; legs stand rather too near, and his chine is too high for a first-class animal; thighs fair depth, flank good; wool heavy, and full fleece, but too straight in staple; he is a splendid animal and deserves the first prize of £25.

Of the two pens of Ewes, of five each, which Mr. Lane exhibited, to one pen of which the 2d prize was awarded, and all of which were sent to Mr. Ware, the Magazine says:

> Nos. 514 and 515. Mr. Lane's ewes. These pens, we think, are of much better character, and truer to each other; they match exceedingly well; they are not so high standing as lot 509 probably, but more compact, and of better quality; they prove well on examination; we characterize them thus, and we are not very careful, to select the pen; but we will take pen 515, and give our notes taken at the time—Five very nicely-matched ewes, with superior compact frames, broad back, and loins fat and firm; necks fair, and countenances good, with plenty of good wool, and stand well and high. We like 515 better than 514, which received the second prize of £10.

Warts on Horses.

Eds. Co. Gent.—Your correspondent inquires for a cure for warts on horses. In 1852, I had a horse which had a wart on one of his fore legs. I applied a ligature, and in a few days it came off, and appeared to be cured; but it soon began to grow again, and in a few months became as large as a hen's egg, and eventually a running sore. I again removed it with a ligature, and applied nitrate of silver (lunar caustic,) to the wound, at intervals of two or three days, for about three weeks, when it healed up and has given no further trouble. H. V. W. *Waterbury*, *Ct.*

In answer to the inquiry of Mr. Smith, I will give my experience in curing Warts. One year ago I had a fine young mare that had no less than half a dozen warts from the size of a pea up to a half dollar. After many unsuccessful trials I applied muriatic acid (with a feather) daily and had the pleasure of seeing them disappear rapidly, and in a few weeks there was not one wart to be seen. It is a safe and speedy cure. E. S. S. *Hartford*, *N. Y.*

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Good Devons.—We saw passing through this city last week two Devon cows and three heifer calves belonging to Mr. C. D. Bent, of Hannibalville, N. Y. They were from the celebrated herd of Mr. Hurlbut, Ct., and are superior animals. They will prove an acquisition to the already fine herd of Mr. Bent.

A Run through the Patent Office Report.

As several of the readers of this paper may not have access to the agricultural portion of the Report of the Commissioner of Patents just issued, and as it contains a considerable amount of information of general interest and utility, capable of being condensed into much briefer space, we have undertaken the task of taking a run through the Report, of condensing the more valuable items of information, and of making here and there a few remarks by way of criticism or commentary.

DISTRIBUTION OF SEEDS AND PLANTS.

In a few pages of 'Preliminary Remarks,' Mr. Mason has made some very sensible and suggestive observations on the subject of experiments with seeds. We are informed that a considerable share of the money appropriated by Congress for agricultural purposes, has been devoted to the procurement and distribution of seeds, roots and cuttings, that being the manner in which, as it seemed, the greatest amount of benefit could be realized.

Among the many expenditures of the public money of very questionable utility, we are pleased to find one appropriation devoted to the excellent object of introducing and naturalizing new and useful vegetables, hitherto unknown in the United States. By the help of this appropriation, measures have been taken to procure from every quarter of the globe such seeds, plants, roots and cuttings, as would admit of useful and successful cultivation in this country. "It is confidently hoped," says Mr. Mason, "that the number of those products which contribute to the comfort and sustenance of the human family, may, by this means, be considerably augmented." Many of the attempts made with this view, are not unlikely to prove abortive, several hundreds of new vegetable products or new species and varieties having been sent out by the Patent Office; but should only a few prove capable of successful cultivation and general utility, the trouble and expense attendant on these experiments will be richly compensated, for it is true as important, as remarked by Mr. M., that "the advantage resulting from the introduction of a new commodity of average utility for consumption or commerce, is of more value to the country than the acquisition of a new province."

The attention of the Office has also been directed to the obaining and distributing of improved varieties of plants already known and cultivated. The idea of improving our grains, grasses, and vegetable products generally, by importations from foreign lands, cannot be deemed chimerical, thinks the Commissioner, when it is recollected how much the value of our live stock has been increased by similar means. Choice varieties of seeds, produced in particular sections of the United States, have also been procured and distributed. As an instance of the benefits which may be hoped for from such efforts to introduce seeds of improved varieties, it is stated that the number of bushels of Indian Corn produced on an acre of ground, depends, in no small degree, upon the kind of corn planted, some varieties being capable of producing fifty per cent. more than others.

The Commissioner suggests that the seeds sent out by the Patent Office should be sown in drills at liberal intervals, and well cultivated, and that the choicest heads should be selected with which to pursue a similar course the succeeding year. He seems also to favor the idea that by following such a course for a few years, a vast improvement might be made in even the very best varieties of wheat with which we are acquainted. Let the choicest heads of any grain be selected, and very special pains be taken in cultivating the produce, and let this course be pursued for a few years, and the probability amounts almost to a certainty that a new family or variety will be commenced, somewhat superior to any of its predecessors. If this improved variety were then sown broadcast, and no special pains taken with it, it would probably produce large crops of superior grain for a few years, and then relapse into an ordinary variety. On the other hand, by sowing only the best seeds and by extra cultivation, improvement might go on to a limit beyond all past or present attainments. It has been by pursuing a course similar to this, that all the improvements in live stock have been made. By like means also, have choice varieties of corn and garden vegetables been oftentimes obtained.

Management of Barn-yard Manure.

Messrs. Editors—A few lines if you please on my experience with barn yard manure; and let me preface by saying I have experimented in almost all ways except, to "move the barn instead of the manure." And if Solon Robinson, or any other man, (is there another!) of the same opinion, as regards barn-yard manure, will settle down a mile from my place, I'll save *him* that trouble.

I was formerly in the habit of piling my manure in the yard in the spring, to rot; but found the bulk reduced about one half, besides being liable to burn, and by experiment, could not perceive that the same bulk, had a greater effect than in the green state—have put it on in this state and plowed in, and agree with you Mr. Editor, in believing that the greatest amount of "manurial elements," are obtained in this way. But owing to the season of the year, and the state of the fields to drive over, I found it much more expensive than at a more leisure time and better traveling. My manure being made in an open yard and sheds, I found it often frozen so that I could get only part, in season for corn, I was led to adopt another mode, which is to draw it out as soon as convenient after harvest, on land designed for corn the next year, putting it in small compact heaps, at such distances apart, as will be convenient to spread. I leave it until just before plowing, which is done late in the fall, then spread evenly and plow under.

I have followed this method from six to eight years, and of course think it the best. My stock are kept in the yard nights through the summer, which together with straw spread over it occasionally to absorb the liquids and make it clean, adds materially to the quality and quantity, and in my opinion overbalances the waste.

I occasionally sow about ½ bushel plaster, over the yard, which I *guess* does good. The drainage passes off on an adjoining field, which I prefer when practicable, to a tank, as that makes labor, and is apt to be neglected, and become an unhealthy, unsightly place.g

I pursue a five years system of rotation, beginnin with corn on green sward, and manage by skipping some of the best spots to get round once in five years with the manure. I prefer applying it to the corn crop rather than any other, except perhaps the potato, (and that my experience has led me to think, where there is a predisposition to rot, it is an aggravation;) because in tilling the corn as it always should be, all foul seeds are destroyed,—the manure mixed with the soil—decomposed and left in good state for the following crop, at the same time yielding its full proportion of nutriment to the present. C. *Amsterdam, N. Y.*

The Orange Watermelon.

The experience of your correspondent from Pittstown, concerning the Orange watermelon, is quite different from mine. About the second week in May, I planted two seeds in a spent hot-bed in a very sunny corner of the garden, only one of which came up, and that bore six melons, the largest of which weighed 15 lbs., the next largest 13½, the other four, ten lbs. each. The rind was about "half an inch" in thickness, and the flesh free from the remotest suspicion of "stringiness," and in flavor they were fit for the gods. Indeed I have "a theory" that the far-famed nectar of the gods was distilled from this fruit. I think they are three times as good as the common kinds, and allowing one for my enthusiasm, leaves them twice as good, and I can get the unanimous vote of the "folks in the house" to that.

Its resemblance to an orange is not very striking, but it is at least as great as that of a pumpkin sweet apple to a pumpkin, or a mountain sprout melon to a mountain. I raised about thirty in all, this year, and agree with a friend of mine, who said, while eating one of them, "this is the kind of melon to raise." Let me advise your correspondent and others—first, procure white seeds, as the dark seed that are sold for Orange melon are a humbug. Then if you have a place in your garden where the sun shines sixteen hours a day, (which I doubt,) make the ground thoroughly rich, and plant there. If not, plant in the sunniest spot you have, and when they begin to run, thin to two, or three at most, in the hill. When the fruit is, say four inches in diameter, set them all on end, the stem uppermost; there being space between the rind and core, they grow unshapely if this is not done.

When they are ripe, cut out each end about the size of a dollar, (we think so much of a dollar here in Connecticut that when possible we always use it to illustrate what we are saying,) bite off the adhering red, then remove the rind by cutting longthwise about two inches in width, carefully cutting the connections; then slice crosswise, as they look much better sliced thus, and the seeds are removed more readily. Having acquired the art of dissecting properly, call in your friends, and have a melon party, take a vote as to their quality, and send the result to the Country Gentleman. Edwin Y. Bull. *Meriden, Conn.*

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Clump-Foot in Cabbage.

At the request of Mr. Julius Chapman, Simshury, Ct., who makes inquiry for a preventive against the anbury or fingers and toes, or more properly, "clump-foot," on cabbage roots, I will give him my experience for forty years, during which time I have never known a plant the least effected by it. When you sow your cabbage bed, add half a bushel of dry unleached ashes, to 6 feet square of land, and incorporate it well with the earth; when you set them, add a table-spoon of ashes to each hole, cover them over with earth, that the tender plant may not come too readily in contact with the ashes, and be assured you will not be troubled with *clump-foot* cabbages; but will realise a return equal to your expectations.

Lime is of that volatile nature, that the strength is too quickly carried off to be efficacious in growing the root free from the net. P. Scarborough. *Brooklyn, Ct.*

Best Way to Preserve Eggs.

Messrs. Editors—In Sept. No. of Cultivator, G. asks some questions on eggs. I cannot answer all, as one or two are difficult: but I will state my method of preserving eggs.

I take a pine barrel, (an old fish barrel well cleaned out answers very well,) and put in the eggs when they are sound, fresh and clean. I then cover them with lime water, made like common whitewash; the lime settles around the eggs, and the water stands on the top of the lime, (the eggs all under lime.) Look at the barrel once in a while, to see if four inches of water, little more or less, covers the whole. If the water is all dried up, the lime gets hard and they are difficult to take out when wanted, and you have to carry them somewhere else to wash off the lime; so always keep water on the top. This lime water must be made at least two weeks before you pour it on the eggs, or your eggs will be boiled hard enough to carry in your pocket.

When I am putting eggs away for future use, I use a pine pail to wet the lime in, and stand it by the side of the barrel in the cellar until it is cold enough; then pour on the eggs. and fill the pail again, and when it has been stirred two or three times and stood two or three weeks, do as before, and so on till I get through. Keep the vessels covered to keep out all dirt, or the eggs will look a poor dingy color. Be careful about this in the lime and water, and you will have fine white eggs.

I cannot tell how long they will keep, as I never saw any spoil. I have some that are five years and a half old as good as they ever were. I always preserve in this way, and have done so over thirty years with perfect success. I have seen people have eggs all spoiled, and have heard them say they would never put any more in lime water. They put them in lime water as soon as it was wet up and boiled them hard enough for a Frenchman's breakfast. If I transport eggs, I barrel them with oats, well shaken down and headed up. They do well for a voyage of two or three weeks, but for daily use at sea, for whaling or other long voyages, the first method is sure and perhaps the best method known. John Wetherly. *Geneva, N. Y.*

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Experiment with Potatoes.

Messrs. Editors—The question being often asked, which variety of potatoes is most profitable for field cultivation—on the 16th of last May I planted a field with 8 kinds, in 8 successive plats, the rows running through each plat—soil rather thin, manured alike lightly in the hill—crop moderate. On Oct. 10th, dug 12 hills of each kind, counted and weighed. The following is the result:

Peachblow—180 tubers, weight 25 lbs.—seed small, 2 tubers to each hill.

Californias—104 tubers, weight 24 lbs.—seed large, cut in 6 to 8 pieces, 2 to each hill.

Torries—138 tubers, weight 23¾ lbs.—seed large, cut in 8 pieces, 2 to each hill.

Black Mercers—220 tubers, weight 20 lbs.—seed small, 2 to each hill.

English Whites—156 tubers, weight 18¼ lbs.—seed small, 2 to each hill.

Merinos—100 tubers, weight 17 lbs.—seed large and cut.

Pinkeyes—116 tubers, weight 16½ lbs.—seed small, 2 to each hill.

Lilacs—125 tubers, weight 16 lbs—seed small, 2 to each hill.

This is the result of one trial; other trials may produce different results, that is, may lead to further experiments. A. Yeomans. *Columbia, Ct.*

A Model Farm of the Empire State.

One of the most interesting agricultural articles we have read for some time is the farm statement of G. W. Coffin of Amenia, Duchess Co., N. Y., to whom the New-York State Agricultural Society awarded the second premium of $30 for good farm management. It will be found in the Transactions of 1854, just published.

MANAGEMENT OF GRASS LANDS.

The farm contains 108 acres, 90 of which are improved. The soil on about two thirds of the farm, is a limestone loam; on the other third it was what is generally called black slate. Mr. C. thinks the best mode of improving the soil is to keep it stocked down to grass, taking care in pasturing not to allow too close feeding off, and such portions as have furnished the winter stock of hay, should receive a dresing of manure as soon after the hay has been removed as convenient. August is the best time. A thick mat of grass left on the land in autumn, answers the double purpose of protecting it from the searching winds and biting frost, affording a rich bed of manure as well adapted to its growth as any that can be applied. In seeding clover land to grass, he is careful to give it a complete and thorough "breaking down," and a bountiful supply of timothy and clover seed.

EXPERIMENT WITH MANURES ON GRASS.

Mr. C. tried Peruvian guano, superphosphate of lime, plaster, and ashes, as manures for grass, with the following results:

	Lbs. hay per acre.
Without manure of any kind,	2000
400 lbs. of Peruvian guano,	4080
800 lbs. plaster,	2680
400 lbs. superphosphate of lime,	3040
Unleached ashes, 26½ bushels,	3840

The cost of a ton of hay produced by the various manures over and above the natural yield, was, with guano, $9.60; with superphosphate, $19.23; with plaster $10 83; with ashes, $3.60.

Superphosphate of lime was used on corn. a tablespoonful to the hill. *It had no apparent effect.*

CULTURE OF INDIAN CORN.

Mr. C. has tried various methods of preparing seed corn, by soaking and rolling in different substances, but has abandoned the whole, and plants as it comes from the cob. He prefers "applying stimulants on the young plants as soon as they make their appearance" He uses plaster and ashes for this purpose—one part of the former to two of the latter, mixed, a small handful applied to two hills. He runs a steel tooth cultivator twice in a row, each way, a man following with a hoe to set up the injured corn and attend to such weeds and grass as are in and near the hill. As soon as the plants attain the height of about six inches, they are thinned out to four in a hill; another dressing of plaster and ashes is then applied, same quantity as at first, and by the time the corn is from 12 to 15 inches high, it has received its last cultivation by horse-power. We should have said that Mr. C. usually plants his corn on sod land that has lain down from 8 to 10, or even 15 years. He does not plow till the last thing before planting. This gives the corn an equal chance with weeds and grass. Plows from 4 to 6 inches deep, harrows lengthwise of the furrows, and marks with a drag, 3 feet apart each way for medium sized varieties of corn, and farther apart one way for larger.

From experiments, Mr. C. finds that the most grain is obtained by cutting up corn at the ground and stooking.

After six years' careful experiment, with a view to ascertaining the relative value of seed corn from different portions of the ear, Mr. C. is "compelled, against all former notions, to yield the palm to that *from the small end.* On different soils with like treatment, it has out-yielded that from other portions of the ear, *in every instance* where care was taken to select those ears that were well rounded over at the little end—the increase reaching as high in some instances as at the rate of 1000 bls. (22 bushels) of ears per acre. Five times out of six, the *larger ends* have yielded more than the middle." Have any of our readers made similar experiments? and if so with what results?

Mr. C. sows from one to two acres of corn for fodder, which is used to good advantage when pastures become dry in August or September. He turns over green sward from first of June to tenth of July, and sows at intervals of two weeks. Makes broad furrows, 3 feet apart, and scatters from 50 to 60 grains to the foot covering by passing the harrow once across the furrows.

Four times as much cured fodder he says, can be produced in this way as is generally taken from the same amount of ground in hay.

Mr. C. tried an experiment in suckering corn. When the suckers first began to appear, they were taken off alternate rows. They soon grew out, and were cut again; the third time cutting finished the growth. The corn was husked at the usual time, 50 hills left to grow without suckering, produced 47¾ lbs.; 50 hills from which the suckers had been taken off, produced 47¾ lbs.

ROOT CROPS.

He raises four to five hundred bushels of carrots per acre, by turning a rich piece of greensward, and sowing in drills 18 inches apart, about the 1st of June. In this way he has little trouble with weeds. Ruta bagas, Mr. C. says, have failed for the last few years, in consequence of a rot similar to that of potatoes

Guano was applied to oats, at the rate of 200 lbs. per acre. It advanced their ripening about six days. The same amount of superphosphate had no apparent effect.

Mr. C. plants his potatoes on corn stubble, and although not quite exempt, they are less affected by the disease than those of his neighbors He attributes this to the absence of all rapidly fermenting substances. The potatoes, however, are small. He made an experiment on potatoes, with the following results:

10 hills without any manure, gave	13 lbs.
Do with handful of fresh ashes,	6½ "
Do with handful of compost hen manure,	19½ "
Do with handful of plaster,	19½ "

The manures were applied in the hill at the time of planting; the ashes proving too strong, but each of the others increased the yield at the rate of about 50 bushels per acre. We are surprised that plaster should have had as great an effect as the compost, though we have often known it to act very beneficially on light, dry soils.

IRRIGATING MEADOWS.

There is a never failing stream of hard water running through the middle of the farm, a distance of one hundred and thirty rods, and in that distance falls sixty feet. It is taken from its entrance on the farm, and conveyed in an open ditch, along the sloping grounds that descend towards the natural stream, and turned out so as to spread over about five acres of meadow. The meadows are near the barn, and are fed down in the fall and spring, until they exhibit a prospect or no great yield of hay. The water is turned on generally the first week in April, and changed, from week to week, to different places until the fore part of June; when it is allowed to spread out upon a pasture lot.

"So enormous," says Mr. C., "has the growth of grass become by the last of June, that we often cut the heaviest portions, and secure them before the month is out. Three tons per acre have been cut from the watered portions, while that adjoining, without water or irrigation, would scarcely yield a ton, though the soil and grasses were of the same nature." This is a gratifying result, and one which accords with the experience of all those who judiciously practice irrigation on grass lands. The Hon. A. B. Dickinson states, as our readers may recollect, that *hard water*, is valueless for irrigating purposes. The above is evidence, if such were needed, to the contrary.

THE DAIRY.

Mr. C. keeps five cows. In the summer of 1852, an accurate account of their produce was kept from the

15th of April to the 15th of November. The number of lbs. of butter produced in this time, (214 days,) was 838½,

Which, at 21 cents per lb., make	$176.08
5 calves sold at $5 each,	25.00
2 quarts of milk, for family use, per day, 214 days, at 2 cents,	12.84
Allowing each cow to produce 100 lbs. of pork from skim milk, sold at $8,	40.00
3 quarts of milk per day for family, for 60 days, at 3c.	5.40
Milk sold in 60 days, at 3 cents per quart	36.25
50 lbs. of butter made in winter, at 23 cents,	11.75
	$307.32

This is $61.26 per cow. Who can beat it?

The cows during the grass season have nothing but pasture. After the frosts began to appear, they were fed pumpkins twice a day, until they had eaten 20 cart loads. Hay and corn stalks form their winter food, except an old cow, that furnished the family with milk and butter through the winter—she had four quarts of corn meal and buckwheat bran, mixed, per day.

SHEEP.

Mr. C. keeps thirty full blood South Down sheep, and twenty Cotswolds; the former sheared 3 lbs. 14 oz. of wool, and the Cotswolds 6 lbs. In 1853, sold the wool all together at 41 cents. In 1854, was offered 31¼ cts. South Down wool is generally worth from 2 to 4 cents per lb. more than the Cotswolds. Mr. C. says:

"I seldom have a ewe that does not produce one lamb, certain, and sometimes three. I do not let them reproduce until two years old. South Downs are most productive, and best calculated to breed in large flocks, endure cold and storms better. I rear 45 per cent. more lambs than I have old sheep; seldom lose one; I sold one full blood South Down lamb that was 60 days old, to a butcher for $5—no extra feed; sold eleven buck lambs for $90. Wethers bring $8 to $12 per head, at two years old, for market. Long-wooled bring more than South Downs for mutton, but it costs more to fatten them." Mr. Coffin doubtless means that the Longwools are larger than the South Downs, and bring more money on that account—not that they are worth more per pound. In London, South Down mutton is worth from 2 to 3 cents per lb. more than Cotswold mutton. Mr. C. also, we presume, would not be understood to say that it costs more to produce a lb. of Cotswold mutton than a lb. of South Down, for it is certain that such is not the case; "it costs more to fatten" Cotswolds, because they are much larger.

Since the failure of his ruta baga crop, Mr. C. allows his sheep, in their stead, a few *small potatoes* in the winter.

SUB-SOIL PLOWING.

In regard to subsoiling, Mr. C. says:

"I have used the subsoil plow on a portion of several lots of different soils, and for different kinds of grain; subsoiled one land of about sixty feet in width, greensward, slaty on one end, and limestone soil on the other; left lands each side without subsoiling, planted to corn; all treated alike otherwise, and no perceptible difference in the yield or growth at any time; next year followed with oats; no perceptible difference in this crop. In another field, soil, limestone, loam and clay; subsoil of an adhesive character: land in corn the year before; subsoiled one land, working to the depth of eighteen inches, and sowed to oats the whole field; stuck stakes and visited the ground often, but could never see a shade of difference in the color of the growing grain, nor in the quantity produced; the stakes were all that marked the boundaries; same field sowed to wheat in the following fall, all plowed alike, showed no evidence of different treatment.

In a field on another part of the farm, less loam and more clay in the soil; used the subsoil plow to about the same depth on one land only; sowed the whole lot to oats, and could see soon after they came up, that on the sand subsoiled they looked yellow and sickly for the first two weeks, but then began to improve, keeping on until they presented the same appearance as the rest of the lot; no one being able to perceive any difference up to the time of harvesting. On gathering, the difference was so apparent that one could have almost told with his eyes shut as soon as he came to this land. Although there was about the same growth of straw as on other portions, yet the bundles were much heavier and heads better filled. The amount produced by subsoiling must have been as much as eight bushels to the acre more than where the common plow was used only. No perceptible difference in the grass this last summer."

Boards for Draining.

Messrs. Editors—Much has been said for a few years past, on the subject of thorough drainage, which is one of the most essential points of successful farming. I give you my method of drainage, which I think is equally as good in all respects, as drain tile. I take two pieces of one inch board, one of one by four and another of one by five, nail the two together, forming a V, of any length—8, 12, 14, or 16 feet, and laying them in the drain. This is equal to the horse shoe tile in calibre, and one thousand feet board measure, will lay 76 rods of drain at about one third of the cost of the horse shoe tile, including the first cost, charges for freight, &c. Every farmer almost in the state, has the means of procuring the boards at a trifling cost, as hemlock, pine, chestnut, or spruce, will saw into this kind of lumber. In case the land be of a quick sand, or soft mucky bottom, requiring the sole tile, I lay one board on the bottom of the drain, one by nine inches, which I think is much preferable, as it is laid in one quarter of the time, and is just as durable as the tile.

I have heard a great many complain that draining is too expensive, the tile costing too much; but in my way of thinking, every farmer in the state, that wishes to drain his land, has the means within himself, and those that have not can procure the lumber at a low price, say from 8 to 10 dollars per one thousand feet. I give you my views on this matter, thinking that some of your patrons may be benefited by this mode of drainage, material and mode of laying drains. William Winspear. *Winspear, N. Y.*

Elevating Water.

Luther Tucker, Esq.—Being a constant reader of your "Cultivator," I observe in the September number (the last which came to the Island,) the first article is on the "Improvement of Grass land," in which you urge your farming readers to adopt the irrigating system, and as water is the main requisite in that system, you state, "We have enterprising farmers who raise water a considerable height by means of hydraulic rams, windmills, &c., for irrigating purposes." Will you be so kind in your November number to describe some of those machines? It is my intention to underlay a great part of my farm with cast iron pipes to irrigate it, but as water, the main requisite, will be deficient in the summer, I am on the look out for the most effective and economic machine to supply me. I have a water wheel which is worked by a sixteen feet fall, which has sufficient water in the winter to bruise gorse for my horses and cattle, but in summer when most wanted for irrigation, the run is small, but if I could send it all up to the elevation required, would be quite sufficient. I have J. J. Thomas' work on "Farm

Implements," in which there is what appears to me a good plan of an hydraulic machine, but there is no formula given for calculating the size of the different pipes to suit the supply of water and its fall, and the height it is to be raised. Will you be so kind as to give it in your next (November) number, and say if that machine sends up all the water that comes, as some hydraulic machines send up to the place wanted but a small percentage of the come-water. State the best principle of a windmill for the purpose.

Captain Harrisson of the British Mail Steamer "Africa," has promised to bring me the "Illustrated Annual Register," for 1855? Will it contain any illustrations of windmills and hydraulic machines that would answer my purpose?

As the price of cast iron is high in the states, will you be so kind as to mention the substitute employed for carrying water on the level and high altitude.

Is Locust seed easily procured in New-York or Albany, and could the particular sort wanted be relied on to be sent, and its price? Rich'd Nicklin. *Douglas, Isle of Man*, 11*th October*, 1855.

Our correspondent will find in the Illustrated Annual Register for 1856, a short description of *Halliday's Wind Mill*, for raising water for farm purposes, and which is undoubtedly the best yet invented. It may be ordered of Henry McCray, agent for its manufacture, South Coventry, Conn. It possesses self-regulating power, and appears on a trial of a year or two to prove quite successful. The windmill described in the work on "Farm Implements," not being a self-regulator, cannot be safely made more than four feet in diameter, and is suited to raise water only to moderate elevations.

We are unable to give a formula or table for determining the size of the different pipes to suit the supply of water for the ram; a large portion, of course, is lost at the escape-valve, and this waste becomes greater as the height to which the water is driven becomes greater than the height of the fall in the driving pipe. Our impression is that a water-ram does not succeed well unless the stream is large enough to fill a tube an inch or an inch and a fourth in diameter with a strong current. The water may be raised sixty feet or more without difficulty, with a descent of three feet.

In this country, *lead* pipe is invariably used for these purposes.

We think locust seed may be procured at the principal agricultural seed-stores, that may be relied on, but cannot give its price.

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Injury to a Cow's Teat.

Messrs. Editors—I have a valuable cow that injured one of her teats in calving. Though the wound has healed, her milk is continually dropping from it. It is, besides, a great annoyance in milking, for the milk not only passes out at the proper opening, but frequently, through this hole, into the milker's face. As I have to be my own veterinarian, I propose to open the wound again with my knife, down to the milk duct, and then sew it up. Can you or any of your subscribers suggest to me a better treatment? H. *Sheffield, Mass.*

Inquiries and Answers.

"Best Work on Farming"—*P. Q. W.* For a single work you cannot probably do better than to purchase the "Farmer's Encyclopedia," price $4—or if you wish a cheaper work, "Allen's American Farm Book," price $1.

Value of Pumpkins and Turnips.—I wish for light from you or some of your intelligent correspondents as to the value of pumpkins for milch cows. Some of my neighbors assert that the free use of them tends to diminish the quantity of milk and to dry up the cow, while others assert with equal confidence that they greatly increase the quantity of milk, and enrich its quality.

Also I should like information as to the relative value of the French Turnip and ruta baga per bushel, compared with corn. Suppose corn worth $1,00 per bushel, what are turnips or bagas worth—to feed to milch cows? A Subscriber. *Concord, N. H.*

Will our correspondents give us their experience in regard to the value of pumpkins for milch cows.

It is difficult to decide what is the value of any root crop compared with corn, inasmuch as the roots have a certain value as a condiment, over and above the actual amount of nutritive matter which they contain. Common white turnips contain on an average about 8 per cent of dry substance, Skirving's purple-top Swede, a large variety common in this country and in England—about 10 per cent; and the smaller varieties of swedes or ruta bagas, 12 per cent. Their relative nutritive value would not vary much from these figures.

If anything, they underrate the value of the ruta bagas—their dry matter being probably more nutritious than the less elaborated dry matter of the common white turnip. This aside, 1 bushel of the small ruta baga is equal to 1¼ bushel of Skirvings ruta baga, and to 1½ bushel of the common turnip; supposing the bushel to be the same weight in each case.

A bushel of corn would contain about 50 lbs. of dry matter, nearly as nutritious, in all probability, as the dry matter of the turnip. Assuming that a bushel of turnips or ruta baga weighs 50 lbs., one bushel of corn contains as much dry matter—say as much nutriment as 8½ bushels of the small ruta baga, 10 bushels of the Skirvings ruta baga, and 12½ bushels of the common white turnip. If, therefore, corn is worth a dollar per bushel, turnips are worth 8 cents per bushel, and ruta bagas 10 and 12 cents. It must be borne in mind, however, that we are not speaking of the value of turnips as a condiment, but as a simple article of food. We hope our correspondents will take up this subject.

Harrowing Wheat and Timothy Grass in the Spring.—When wheat and Timothy are sown in the fall, can the ground be harrowed the following spring without injuring the grain or grass seed? O.

Harrowing wheat in the spring is on many lands decidedly beneficial, and on none, so far as we aware, does it prove injurious. We have seen wheat harrowed on very light and on claycy soil in England, with considerable benefit. Some few farmers in Western New York have harrowed their wheat in the spring for many years, and are much in favor of the practice. It is, however, by no means common.

We have never seen wheat harrowed in the spring when Timothy seed has been sown with it in the fall. Will our correspondents give us their experience on this point.

O. E. Mead, West Plattsburgh, N. Y.—The Stump Machine referred to is made by Mr. Willis of Orange, Mass.

Muscles as Manure.—I wish to know your opinion as to the value of muscles and salt mud as a manure. Living as I do upon the banks of Merrimack River and near its mouth I can get any quantity delivered at the landing on the river for about 50 cent per ton I want to use it principally on onions, carrots, rees, &c. Willis P. Sargent. *West Amesburg.*

We have had no experience in their use, but should deem them very cheap at the price mentioned.

Ag. School.—W. D. A., Manchester, Ct., asks—"What I wish to know is this. The location of the principal agricultural schools in the Union, and other information, which will enable me to correspond with them, and also what school, expenses and all included, you think best for a youth to attend, who desires an agricultural education."

We regret to have to say that we know of no school, where the principles of agriculture are taught, either in theory or practice, in our whole country.

Dioscorea Japonica.—A correspondent asks whether we consider this new potato plant a "humbug." We have no reason to regard it as such. Probably some of the accounts circulated respecting its merits are somewhat exaggerated. We usually deduct 50 per cent. from statements respecting new plants, implements, fertilizers, &c. After doing so in this case, the Dioscorea has still left many qualities which render it worth a trial. We hope those who have experimented with it will give us their experience.

A. F. R. New Hartford, N. Y.—We believe rye has been sown in some few instances as late as the first week in November, in the New England states, and produced a good crop. But there is too much risk about it to warrant us in recommending you to sow it so late in the season. If you do, two bushels of seed per acre will not be too much. We know of no "seed that can be sown at this time in order to facilitate work in the spring." Winter rye should be sown in September. One and a half bushels of seed per acre is the usual quantity sown. Your other inquiries next week.

Hard-pan.—Will you or some of your numerous scientific correspondents, inform me through your paper of the nature and quality of what we call hard-pan. Much of our most valuable land, in this vicinity, is underlayed, from one and a half to two feet below the surface, with a most tenacious subsoil, much resembling very hard frozen ground. Now what we wish is, to ascertain of what it is *composed*, whether an excess of lime or clay, or of some one or more mineral substances; and what is the proper application to render it more friable and porous.

I have looked through most of the Agricultural papers of the day, or rather such as have fallen under my eye, but have never seen anything to meet the above inquiries; and any plain practical information in relation to the subject it is believed will be very gladly received by many of your subscribers. S. O. *Harwinton, Conn., Oct. 23d,* 1855.

Books on Domestic Animals.—A subscriber would like to see in the "Cultivator" a $10 dollar list of the best books for a young farmer, particularly the names of the best treatises on live stock. A. B.

Among the best books on the management of domestic animals, we would name,

Dadd's American Cattle Doctor,................	$1.00
Youatt on the Horse, American Edition,.......	1.50
Stewart's Stable Economy,....................	1.00
Youatt & Martin on the Hog,..................	75
Morrell's Am. Shepherd,......	1.00
Youatt on Sheep,.............................	75
Do on Cattle,....................	2 00
	$8 00

The remaining two dollars may be expended on a few of Saxton's twenty-five cent hand books, particularly Richardson on *Hogs*; on *Domestic Fowls*; and on *the Horse*; and if desired Brown's Poultry Book, or Bement's new edition of his work on poultry, now in the press, about one dollar each.

Tea Wheat.—*J. McKinney, Sullivanville Chemung Co., N. Y.* Tea wheat can be obtained from Emery Brothers of this city. Whether it has in all cases "answered the expectations that were first entertained of it," we do not know. It is, however, unquestionably a good spring wheat. We shall be glad to have the experience of those who have raised it, in regard to its comparative value with the Fife, red and white chaff, Black Sea, Siberian, and other well known varieties of spring wheat.

R. R. Chillon, Byhalia, Miss—Thomas' Fruit Culturist, Downing's Fruits and Fruit Trees of America, and Barry's Fruit Garden, are our three standard works on horticulture. We cannot say which is "best," and which "gives the fullest information and that of the most practical character." Thomas is considered more practical than Downing, and his work is the more recent of the three.

White and Yellow Corn.—The opinion of most of our *practical* farmers is prevalent, that yellow corn is more nutritious and better generally for stock than white corn. Will you favor me with your views on the subject, and the comparative estimate of your farmers, if indeed, any have been deemed worthy to be made. Robert L. T. White. *Hillsborough, Loudon Co., Va.*

We know of no experiments which afford satisfactory evidence on this point. Dr. Salisbury made analyses of several varieties of corn which you will find in the Transactions of the N. Y. State Ag. Society for 1848. He says: "As a general rule, those varieties with full corneous kernels are richer in the nitrogenized bodies and oil, and less rich in starch, than the intended kinds; and of the corneous sorts with distended grains, the *yellow* seems to be richer than the *white* in oil and those bodies which contain nitrogen, and less rich in starch." Chemists have been in the habit of estimating the nutritious value of food by the nitrogen which it contains; and they would accordingly consider *yellow* more nutritious than *white*, because it contains more nitrogen. Practical experiments, however, show that the fattening properties of food are rather in proportion to the starch, oil, sugar and other available carbonaceous compounds which it contains than to the nitrogen. According, to this, the analyses of Dr. Salisbury do not, as has been supposed, make the yellow more nutritious than the white varieties of corn. We shall be glad of the experience of our correspondents on this point.

Keeping Onions.—Will you please inform me through the Cultivator, of the best method of keeping Onions till spring. Is it important that they should not be frozen? W. H.

Our Recipe for Curing Meat.

Those who will carefully adopt our method of curing pork and beef, will be enabled to enjoy as fine hams, tongues, "dried beef," and rounds, as the Emperor of all the Russias can command, always providing that the meat cured is of the best quality. It is this:

To one gallon of water,
Take 1½ lbs. of salt,
½ lb. of sugar,
½ oz. of saltpetre,
½ oz. of potash.

In this ratio the pickle to be increased to any quantity desired. Let these be boiled together, until all the dirt from the sugar, (which will not be a little) rises to the top and is skimmed off. Then throw it into a tub to cool, and when *cold*, pour it over your beef or pork, to remain the usual time, say four or five weeks. The meat must be well covered with pickle, and should not be put down for at least two days after killing, during which time it should be slightly sprinkled with powdered saltpetre.

Several of our friends have omitted the boiling of the pickle, and found it to answer equally as well. It will not, however, answer *quite* so well. By boiling the pickle, it is *purified*—for the amount of dirt which is thrown off by the operation, from the salt and sugar, would surprise any one not acquainted with the fact.—*Ger. Tel.*

Notes for the Month.

Agricultural Lectures.—Spirited efforts are making to establish an Agricultural College at Cleveland, Ohio. An association was formed last year, professors appointed, and a course of lectures delivered during the winter. An act of incorporation has been obtained, and the Board of Trustees organized by the appointment of Harvey Rice, Prest., and Thos. Brown, Sec'y. It is proposed, and we think wisely, to confine the course of instruction to one annual session of three months, and to adapt it to the present actual wants of our farmers. The second annual session will commence on the first of December, and continue three months, with four lectures daily, by Professors Kirtland, Dascomb, St. John, Fairchild, and Townsend. We hope they may find their halls crowded, and that the time is not far distant when our young farmers will place as high an estimate on the advantages offered by such a course of lectures, as do the medical and law students at the present time.

At Amherst College.—Arrangements have been made for instruction on Agriculture and its kindred sciences, in connection with this institution. Beside the course on practical agriculture and on the applications of science to the same, by Prof. Nash, it will embrace courses of lectures by Professors Hitchcock, Snell and Clark, on geology, mechanical philosophy, chemistry, &c., &c. For further particulars, address Prof. J. A. Nash, Amherst, Mass.

Fruit, &c.—We are indebted to our friend, Wilson Dennis of Cedar Grove, Bucks Co., Pa., for a box of pears, apples, potatoes, &c., including an Osage Orange. Among the apples, were the Smokehouse, Cornell's Fancy, Sweet Winesap, Winter Redstreak, Wine Apple, Twenty Ounce, &c. In a note accompanying the box, Mr. D. says:—"The Smokehouse we consider the best apple of its season—it is a good bearer, and the tree thrifty. The Cornell Fancy, another Pennsylvania seedling, we think excellent, much the best of its season. They commence ripening about the 20th of 8th mo. (Aug.) and continue all through 9th mo. The specimen sent is quite small and over ripe. The Sweet Winesap is another excellent apple which will keep till spring. The Late Red potato which I send you, we think nearly equal to the Mercer, and it will yield nearly double on the same ground." The specimens are all of good size and handsome appearance. We are unable to give the name of the Pear sent.

Some Fruits, &c.—We desire to acknowledge our indebtedness to our friend R. T. Underhill, M. D., for a basket containing Isabellas and Catawbas from his well-known, extensive vineyards at Croten Point; also a jar and tumbler each, of Catawba Grape and Apple Quince Jellies. The grapes, though perhaps a little too late to be in their prime, are—or *were*—excellent. As to the Jellies, a unanimous verdict has also been rendered in their favor—as "beautiful," exceedingly, both to the eye and to the palate. We understand that the Dr. commands a wide market for the produce of his vines and bushes, and it certainly argues *something* for the taste of the community that he does.

— Also to our townsman, Elisha Dorr, for some veritable Plums,—this the evening of the 29th October, by us seen, smelt, and by the more satisfactory evidence of the taste, proved to be such, all doubters to the contrary notwithstanding. They are of the *Schuyler Gage* and *Madison* varieties, and only just now plucked from the tree. They would form a delightful topping to a dish of Dessert Fruit, at least as a curiosity at this frosty time of year.

Beef-Steak Apple.—We have samples of an apple known by this name, from Willis P. Sargent, Esq., of West-Amesbury, Mass. Mr. S. says the tree is a good grower and an abundant bearer, and that the fruit is esteemed "very good." They are in eating at this time, and would be called "good" any where.

Winter Poultry Show.—A meeting of the Board of Directors of the New-York State Poultry Society, was held in this city on the 10th inst., at which it was resolved to hold the next exhibition of the Society in Albany on the 13th, 14th and 15th days of Feb. next—the same days on which the annual meeting of the State Ag. Society is to be held. The list of Premiums, increased from previous years, was agreed on, which will soon be issued, and the necessary arrangements made, and a splendid exhibition is anticipated.

A New Potato.—We have received from Mr. S. C. Garrett, of South Westerlo in this county, some samples of a seedling potato of his raising. They are beautiful in appearance, and on trial proved excellent, both for boiling and baking. In fact we do not know that we have seen its superior in a long time.

☞ The Black Hawk horse "Henry Clay," which took the second prize in the Class of Stallions for General use, at the late fair at Boston, is owned by Hiram Wilson, of Crown Point, Essex Co., N. Y. He is a beautiful iron grey, six years old, of faultless symmetry and sprightly action, and was much admired.

The Clover Seed Crop.—Although an unusually large breadth of clover land was allowed to go to seed this year, it is feared that we have harvested only a very short crop. The cool, wet weather caused a large growth of stalk and foliage, but there was not sufficient heat for the production and ripening of the seed. The *Ohio Cultivator* fears the crop has proved "almost an entire failure" in Ohio and Indiana. We saw some fine crops of clover seed in Pennsylvania a few weeks since, but in this state and throughout New-England, we fear the crop has been seriously injured by the cold, wet weather. We shall be glad to receive any information our correspondents can give us in relation to the crop in their neighborhoods. A short crop of clover seed is a national calamity, for a short crop of clover means nothing less than a short crop of wheat.

Great Ruta Bagas.—Mr. Benjamin Ireland of Dexter, writing us under date of Oct. 29, says: "I raised this season seven Ruta Bagas which weigh in the aggregate 98 lbs.—the largest, 16 lbs. 8 oz., and the smallest, 10 lbs." He adds: "They were taken from a hot bed and set out on ground that was broke up last spring, on which I put very little dressing. They had no extra care, and I had no reason to expect that they would attain to such growth. Can any one beat this?"

Can any one "beat" this? Some, perhaps, can *beet* it, but we doubt whether any one can out-turnip it. Such a growth equals the turnips of England where they can raise almost no other cultivated field crop.—*Rural Intelligencer.*

These are large ruta bagas. We recollect selecting out 10 of the largest Skirving's Swedes (ruta bagas) from a field at Rothamsted, (Eng.) and they were found to weigh 112 lbs. The crop yielded 20½ tons of bulbs per acre, by actual admeasurement. Number of plants 20,120. Had each bulb weighed as much as the 10 selected, the crop would have been over 100 tons (gross) per acre. Will the time ever arrive when we can grow such a crop? This climate is not as good for turnip culture as England, but we can and do raise as large bulbs as our cousins over the water. But what does Brother Drew, who has been in England, mean by saying. "*They can raise almost no other cultivated field crop*" than turnips. Poor Albion! Horace Greely says thy sun is a *big boiled turnip*, and Brother Drew that thou canst raise nothing but the same water root. Hard is thy fate! Well may thy Bank raise the rate of interest to 6 and 7 per cent. But be not down hearted Brother John. We will try to spare you a few million bushels of wheat, and all the "yallow male" you can eat. Turnips and Indian meal would not go amiss, and would certainly be nutritious

New Ag. Journals.—We have unintentionally delayed to notice the receipt of two weekly agricultural journals which have recently been established—one at Hartford, Conn., by Andrew Stark—*The Homestead*, with Wm. Clift, T. S. Gold and Henry A. Dyer, as editors—the other, *The Western Agriculturist*, at Pittsburgh, Pa., by David Ramaley, with J. S. Negley as horticultural editor. They are both got up in good style—in quarto, at $2 per year—and afford promise of essential aid to the cause of rural improvement.

Onondaga County.—The fall has been very wet, and much corn is not yet harvested. The yield of *good* corn is below the average. The yield of barley is small, and the crop in this county is *very much* smaller than usual. The excessive rains have given us a great quantity of fall feed, and pumpkins were never more numerous. E. M. *Camillus, Nov.* 2.

Reaping Machines.—The deferred trial of the Reaping Machines selected at the meeting of the Royal Ag. Society of England in July, took place on Wednesday the 29th of August. No pains appear to have been spared to render this trial in every respect perfect and satisfactory. This result, it is said, was finally attained; and it is probable that no reaping machines in this or any other country have ever been more severely, impartially, or satisfactorily tested, than in the late deferred trial. The awards of the Judges were as follows:—

1st Prize to Burgess & Key's Improvement of McCormick's Reaper.

2nd Prize to Palmer's Improvement of Forbush's Reaper. Hussey's Reaper, as improved by Wm. Dray & Co., of London was highly commended, but did not have any prize awarded, as only two prizes were given.

In connection with this result of the recent trial of reaping machines, it may be stated as one of the most remarkable circumstances about such trials, that during the five years in which the English Royal Ag. Society has offered premiums for the best machines, in each year a different machine has been pronounced the one superior to all others. In the first year McCormick's was classed first;—in the second year Hussey's;—in the third year Bell's, manufactured by Crosskill;—in the fourth year Hussey's, manufactured by Dray & Co.;—in the fifth, the present year, McCormick's, manufactured by Burgess & Key.

These yearly changes may probably be attributed mainly to new improvements introduced into machines which failed on previous trials; and they would seem to show that the several machines are very nearly in merit. Obs.

Meteorology of the United States.—We are indebted to Robert Russel, Esq., of Kilwhiss, Scotland, for a paper read by him before the British Association at their late meeting in Glasgow, on "The Meteorology of the United States and Canada." Mr. R. had but recently returned from an extended visit to this country, and his remarks are interesting as the result of much study and personal observation. He agrees in the main with Profs. Espy, Hare, Loomis, Mitchell, and other American meteorologists. We are also indebted to Mr. R. for a paper on the "Theory of Liquid Manuring and Irrigation." We may allude to these interesting papers at a future time.

Broom Corn.—I would be thankful for some information concerning broom corn. When should it be planted, and how? In short its management from the time it is planted till it is ready for market. There is very little raised in this vicinity. J. O. M. *Lebanon, O.* [We shall be very much obliged to any one who will furnish the information asked for.]

Sprouted Wheat for seed.—The *Indiana Farmer* copies from the *Country Gentleman* the statement made in the *Rural New-Yorker* by Wm. Garbut, Esq., of Wheatland N. Y. that he had taken some of his "worst sprouted wheat," put it into "rich soil of suitable moisture," and that "every kernel of it has grown," and remarks:

> On reading the above we took a handful of badly sprouted wheat, and having separated the sprouted from the sound kernels, wetted the whole, and placed them in a situation to induce speedy germination in order to test the correctness of the statement. In two or three days the sound kernels sprouted, while *every one of the others were found to have rotted, without showing the smallest signs of germination*; just such a result as might have been expected. We cannot but suspect that the *New-Yorker's* correspondent must have been, somehow, mistaken in the result of his experiment. We really doubt if any such wheat as he describes ever did put out a new set of sprouts.

Have any of our readers tried similar experiments, and with what result?

Wheat Crop in England.

It is impossible to form at present any correct estimate of the yield of the wheat crop in England, for, unlike us, the farmers there seldom begin to thresh till near Christmas. It appears to be the general opinion, however, that it is below an average. It certainly is far below what it was last year, which was one of the best wheat seasons ever known in England. The yield of Mr. Lawes' experimental wheat field is, as proved by the last 12 years, a pretty correct indication of the general crop. In a private letter just received from Mr. Lawes, he says: "I have just got this years wheat results in Broadback; [the name of his experimental wheat field,] the highest produce is about 35 bushels per acre, that on the unmanured plot 17 bushels per acre, [this plot has produced 12 annual crops of wheat without manure.] *I consider this about an average season*, and I believe my field gives a very fair idea of the crop of wheat in Great Britain."

The *Mark Lane Express* of Oct. 22, says: "We are happy to hear that in many cases farmers who have threshed the present year's crop of wheat find the yield better than expected; this, however, applies only to those farms where produce was expected to be fair. The rates in America being so well maintained, will doubtless eventually bring still more abundant supplies from the west, and the tempting prices realized through an extensive European demand may dispose farmers to part with their stocks of wheat more freely, as well as the consideration that they have a harvest of maize so far beyond their own necessities."

The same paper, in an article on the wheat crop in America, says:

> The wide difference between the transatlantic corn reports of last week is deserving of notice. Thomas Peele for example, states the export of wheat and flour for the ensuing year at 24,000,000 bushels, whereas the *New-York Daily Times* allows three times that quantity, or 72,000,000 bushels supposing 3,000,000 bushels

for the increase of consumption over that of last year. Both may be extremes, but the latter we aver is nearest the mark. In 1853 the consumption for the United States is given in round numbers at 102,000,000 bushels; 1854, 105,000,000 bushels; 1855, 108,000,000 bushels; and the produce in 1856 being "185,000,000 bushels," not a very high increase of produce per acre when we look at the greater breadth sown, being much under our own increase of last year, and consumption 111,000,000 bushels, there would remain for export 74,000,000 bushels, or 9,250,000 qrs., supposing no more than the usual quantity of Indian-corn meal consumed. But, as the above journal justly observes, oats and Indian corn, especially the latter, being an over abundant crop, much more oat and Indian-corn meal will be used at home, many of our relatives proposing to use nothing else, sending their whole crop to market, while last year they lived almost exclusively on wheat flour, so that from 10,000,000 to 12,000,000 qrs. may be spared for Europe. Add to this the fact that any quantity of Indian corn can be spared almost, and that Indian meal is now largely used in many parts of the continent of Europe, we see no reason to despair of even over-flowing plenty—a state of things which cannot be too widely known.

We feel quite certain that the above estimate of the quantity of wheat we can export to Europe is *far too high;* even if *all* the relatives of our friend of the *Times* should "use nothing else" than oat and corn-meal. It is evident that the English are looking to us for breadstuffs, and we fear they will be disappointed if they expect an "overflowing plenty."

◆

MARSHALL justly observes, "Agriculture is a subject, which, viewed in all its branches and to their fullest extent, is not only the most important and the most difficult in rural economics, but in the circle of human arts and sciences."

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No. 12 BROADWAY, NEW-YORK.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers, Reapers, Horse Powers and Threshers, Combined Thresher, and Winnowers, and other Agricultural Machines.

May 24—m12t*

NURSERY STOCK

Of FRUIT TREES and EVERGREENS,

To be sold by W. THORBURN, J. V. B. TELLER, and Estate of JAMES WILSON deceased;

WHO now offer for sale, in lots to suit purchasers, the entire NURSERY STOCK belonging to the firm. *Great reductions* from the regular prices will be made, as we desire to make as large sales as possible this autumn and next spring, to dealers and others, in order to *settle up entirely the business of the firm.* The stock is as follows:

31,000	Grafted Apple, 5 to 12 feet high, with fine heads.
14,000	Standard Pear, with fine heads, 4 to 10 feet high.
4,000	Plum, 4 to 10 feet high.
1,600	Cherry, 5 to 12 feet high, with fine heads.
2.000	Peach, 1 and 2 years from the bud.
3,000	European Lindens, 2 and 3 years, very fine trees, with fine heads.
3,000	European Mountain Ash, 1 to 3 years.
5,000	Norway Spruce.
1,000	European Larch, 100 Tulip Tree.
150	Laburnum and Balsam Fir.

Also, Pear, Apple, Plum and Cherry Stocks. The Fruit trees embrace all the very best varieties for extensive cultivation, and are of fine, healthy growth.

Personal inspection of the trees at the Nursery, preferred to correspondence. A liberal discount for cash, as it is desirable to sell for *cash*, instead of on credit. Catalogues to be had on application, or by mail, directed to

W. THORBURN, Seedsman, &c.,
Sept. 13—w7tm3t 492 Broadway, Albany.

Isabella and Catawba Grape Vines.

OF PROPER age for forming Vineyards, cultivated from and containing all the good qualities which the most improved cultivation for over fifteen years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north. All communications addressed to R. T. UNDERHILL, M. D., New-York, or Croton Point, Westchester County, N. Y., will receive attention. The additional experience of three past seasons, gives him full assurance that by improved cultivation, pruning, &c., a crop of good fruit can be obtained every year, in most of the Northern, all the Middle, Western and Southern States.

Also, Apple and Quince Trees for sale as above.

N. B.—To those who take sufficient to plant six acres, as he directs, he will. when they commence bearing, furnish the owner with one of his Vinedressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor.

Nov. 8—w4tm2t R. T. U.

THE DOLLAR NEWSPAPER,

PHILADELPHIA,

Is believed to be the cheapest and best family paper in the United States, and aims to interest and instruct every member of the family circle.

PRICE TO SINGLE SUBSCRIBERS $1 PER YEAR.

THE "Newspaper" contains as much reading as the large two dollar papers, and weekly more original matter than any other paper of like character. It has unequalled facilities for THE EARLY PUBLICATION OF NEWS. With monster machines, capable of printing each 20,000 copies per hour, its columns can be held open for news, each week, to within a few hours of the date of publication. It is thus enabled to publish the latest and most reliable market reports, and to give all important news to the latest moment.

THE FARM AND THE FARMER.

The Agricultural Department of the "Newspaper," is spiritedly maintained by contributions from practical farmers, and by thousands of readers this department is considered one of the most important features of the paper. Theoretical and practical agriculture, thus blended and compressed weekly into a short space, it is hoped will not fail to interest and profit its readers.

Three Original Novelettes.

For the cultivation of a correct taste in literature the publishers have not hesitated to incur the expense of the best story writers in the country, and have formed engagements for three Original Novelettes, from P. HAMILTON MYERS, EMERSON BENNETT, and CHARLES J. PETERSON, Esq., all gentlemen well known to literary fame. These novelettes are to be furnished with the least possible delay. The publication of the first will be commenced in the course of a few weeks, and will be followed immediately by the others. All these stories will be copy-righted and published in book-form—a proof of their superior character.

The publishers have renewed their offer of a year's gratuitous subscription to each subscriber of that Post-Town, that shall send in the greatest number of subscribers within a year from the first day of June last.

The following are its TERMS PER YEAR:

One copy, one year,				$1
Six copies, one year,				5
Thirteen copies, one year,				10
Twenty, *and one to the getter up of the club,*				15
Twenty-seven,	do	do	do	20
Thirty-four,	do	do	do	25
Forty-two,	do	do	do	30
Fifty,	do	do	do	35
Seventy-five,	do	do	do	50

To secure the advantages offered to Clubs, the amount of payment for each Club must be remitted at the same time.

Address, post-paid, to A. H. SIMMONS & CO.,
S. W. corner Third and Chestnut sts., Philadelphia.
Nov. 1—w2tm1t.

HAY PRESSES.

HAY PRESS, to press bales of 150 lbs. to 225 lbs—Price $40. Hay Press to press bales of 200 lbs. to 250 lbs.—Price $75.

The above presses are well-worthy the attention of farmers. For sale at the North River Agricultural Warehouse.

GRIFFING & BRO.,
Sept. 27—w&m3m 60 Cortlandt-St., New-York.

SHEEP BOOK.

THE Breeds, Management, Structure and Diseases of the Sheep, with Illustrative Engravings and an Appendix. By Henry J. Canfield of Ohio—for sale at the office of this paper—price $1.00.

FOR SALE,

A FEW pair fancy Lop-Eared Rabbits at moderate prices, very fine specimens, delivered at Hudson.

Also a few pair Dorking Fowls, from the fine stock of R. H. Van Rensselaer, ready for delivery in September. Address S. V. C. VAN RENSSELAER,
Claverack,
July 26—w&mtf. Col. Co., N. Y.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep, French Sheep, and Suffolk Pigs.

Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. March 1—w1y*

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

THOMAS GOULD,

BREEDER OF

Durham Cattle, Suffolk Swine,
Madagascar or Lop-Eared Rabbits, English Ferrets,
GUINEA PIGS,
Dorking and Brahma Fowls,
AURORA, CAYUGA COUNTY, N. Y.

Suffolk Pigs,

OF pure blood, for sate by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

ENGLISH CATTLE.

Imported on commission by Messrs. THOS. BETTS BROS., Bishop's Stratford, Herts, England—81 Maiden Lane, New-York City.

BEING much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,
Short-Horned Cattle,
Devons, Herefords, Ayrshires,
Alderney Cows from Islands of Alderney and Guernsey,
Pure bred Southdown Sheep,
Hampshire Sheep,
Cotswold, Leicester do
Suffolk Pigs,
Essex, Berkshire do
Merino Sheep from Spain,
Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane.
Jan. 4—1am—m1y. New York City.

FARM FOR SALE.

A FARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is *choice* natural meadow land.

It has upon it a good *Dwelling House* and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPER & Co., 41 Water St., New-York; Caleb Gasper, Esq., Marcellus, Onondaga Co., Geo Young, Esq., Milo Center, Elias Bently, Esq., Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co. Norman Seymour, Mechanicsville, Saratoga Co., N. Y., Judge Ellsworth, Pen-Yan. March 1—mtf—

Virginia Land for Sale.

THE subscriber having yet a few Farms for sale from his large and valuable tract of land situated in the county of Fairfax, Virginia, on and near the Turnpike leading from Washington and Georgetown to Leesburgh, 16 miles from the city of Washington, two miles from the Canal, and within 3 miles of the Alexandria, Loudon and Hampshire Rail Road. The soil is of the first quality, of a deep red color, seldom affected by drouths to which most lands are subject. Adapted to grain, plaster, clover, and all kinds of grass. The land will be sold in lots of 100 or 200 acres, or as the purchaser may desire. Every Farm will be well supplied with wood, which consists of oak, chestnut and second growth of pines. Persons wishing to purchase would do well to call and examine before purchasing elsewhere. For further particulars, inquire of the subscriber on the premises.

S. S. MILLER,
Aug. 1—m5t Spring-Vale, Fairfax Co, Va.

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag. Price $52 per ton of 2000 lbs.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag. Price $43 per ton of 2000 lbs.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure **2** under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
Oct. 11—mtf New-York.

DE BURG'S NO. 1

Ammoniated Super-Phosphate of Lime.

THE above valuable compound is warranted pure and genuine. The manufacturing department is under the personal direction of the subscriber, and will have studious attention as to his preparation at all times being uniform in its component parts. Many experiments during the past year, with the above brand, in equal quantity with Peruvian Guano and other concentrated Fertilizers, scrupulously testing its value as compared with the latter, by various State Farms, public Agricultural Committees, &c., have been made, showing a preference for it as a manure, both as to early inducement and prolificness of growth. Pamphlets will be sent on application to the subscriber, containing full directions for use, &c. C. B. DE BURG,
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ESTABLISHED AUGUST 4, 1821.

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☞ TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (including our terms,) for their *editorial* columns, shall be *entitled* to an exchange, by sending us a marked copy of the paper containing advertisement or notice.

Dec. 1—w22,24m2t.

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